DOCUMENT RESUME

ED 147 540 CE 013 811

AUTHOR Mott, Frank L.; And Others
TITLE Years for Decision: A Longitudinal Study of the Educational, Labor Market and Family Experiences of Young Women, 1968 to 1973. Volume Four.
INSTITUTION Ohio State Univ., Columbus. Center for Human Resource Research.
SPONS AGENCY Employment and Training Administration (DOL), Washington, D.C.
PUB DATE Nov 77
NOTE 366p.; For related documents see ED 049 376, ED 076 812, and ED 094 135 ; Parts of document may be marginally legible due to small type
AVAILABLE FROM The Ohio State University, College of Administrative Science, Center for Human Resource Research, 1375 Perry Street, Suite 585, Columbus, Ohio 43210 ($0.80)

EDRS PRICE MF-$0.83 HC-$19.41 Plus Postage.
DESCRIPTORS Academic Aspiration; Adolescents; Career Choice; Career Planning; College Attendance; Demography; Divorce; *Educational Experience; *Employment Experience; Employment Opportunities; *Employment Patterns; Employment Problems; *Family Influence; Family Problems; Females; Financial Problems; Income; Life Style; Longitudinal Studies; Migration; Mothers; National Surveys; Occupational Aspiration; Occupational Mobility; Sex Differences; Statistical Studies; Wages; *Working Women; Young Adults
IDENTIFIERS United States

ABSTRACT

Utilizing the National Longitudinal Surveys of 5,159 young women aged fourteen to twenty-four from 1968 to 1973, the study reports on the educational, labor market, and family experiences of young women. The content is in seven chapters. Chapter 1 describes the data base and presents an overview of changes in the women's life patterns over the study period. Chapter 2 examines college attendance and the factors associated with desires and expectations for higher education and the quality of the institution a woman attends. Chapter 3 studies the labor force dynamics associated with withdrawal from and reentry into the labor force when a woman bears her first child. Chapter 4 explores the characteristics of young women that are associated with the choice of an atypical occupation. Chapter 5 examines determinents of average hourly earnings of young women with focus on the impact of training and on differences in wage structures by sex. Chapter 6 analyzes causes and consequences of migration for the economic welfare of young women and their families. Chapter 7 examines some of the determinants of marital disruption and its economic consequences. (Eighty-eight tables and thirteen figures are included. The 1968 and 1973 survey forms are appended.) (EM)

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YEARS FOR DECISION:

A longitudinal study of the educational, labor market and family experiences of young women, 1968 to 1973

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VOLUME FOUR
November 1977

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FOREWORD

For more than a decade the Center for Human Resource Research of The Ohio State University and the U.S. Bureau of the Census, under separate contracts with the Employment and Training Administration of the U.S. Department of Labor, have been engaged in the National Longitudinal Surveys (NLS) of labor market experience. Four subsets of the United States civilian population are being studied: young men who at the inception of the study were 14 to 24 years of age; a counterpart group of young women; women 30 to 44 years of age; and men 45 to 59 years of age. These groups were selected because each is confronted with special labor market problems that are challenging to policy makers: for the middle-aged men, problems of skill obsolescence and deteriorating health that may make reemployment difficult if jobs are lost; for the older group of women, problems associated with reentry to the labor market after children are in school or grown; and for the young men and women, the problems revolving around occupational choice, preparation for work and the often difficult period of accommodation to the labor market when formal schooling has been completed.

For each of those four population groups a national probability sample of the noninstitutional civilian population was drawn by the Census Bureau in 1966; interviews have been conducted periodically by Census enumerators utilizing questionnaires prepared by the Center for Human Resource Research. Originally contemplated as covering a five-year period, the surveys have been so successful and attrition so small that they have been continued beyond the initially planned expiration dates. As of the end of 1977, the older cohort of men had been interviewed in 1966, 1967, 1968 (mail), 1969, 1971, 1973 (telephone), 1975 (telephone) and 1976; the older cohort of women in 1967, 1968 (mail), 1969, 1971, 1972, 1974 (telephone), 1976 (telephone) and 1977; the young women annually between 1968 and 1973 and in 1975 (telephone) and 1977 (telephone); and the young men annually between 1966 and 1971, in 1973 and 1975 by telephone, and again in person in 1976. In early 1978, a personal interview with the young women will complete a decade of interviews with all four cohorts.

Current plans call for relatively brief telephone surveys of the existing samples in the twelfth and fourteenth years, and a longer face-to-face interview in the fifteenth year. Thus, the final interview of the two male groups is scheduled for 1981, while the corresponding surveys for the older and younger cohorts of women will take place in 1982 and 1983, respectively. The Bureau of the Census will continue to be responsible for the field work and data reduction.

In addition, on the basis of a questionnaire survey of all known users of NLS data and a recommendation by an interdisciplinary panel of experts, the Department of Labor has decided to begin interviews with two new cohorts of youth. The new cohorts are being designed to permit a replication of much of the analysis made of the earlier cohorts of young women and young men and also to allow an evaluation of the expanded employment and training programs for youth legislated by the 1977 amendments to the Comprehensive Employment and Training Act. To these ends, a national probability sample will be drawn consisting of 6,000 young women and 6,000 young men between the ages of 14 and 21, with overrepresentation of blacks, Hispanics, and economically disadvantaged whites.

According to current plans, the new sample of youth will be interviewed for the first time in November 1978. The Center for Human Resource Research will enter into a subcontract with a survey research organization for designing the sample, conducting the field work, and preparing the data files. This organization is to be selected on the basis of the recommendation of a panel of experts who will have reviewed proposals submitted by a number of such organizations.

A substantial body of literature has already appeared based upon the NLS data. Seventeen volumes of comprehensive reports have been published on surveys conducted through 1972. These have appeared under the titles of The Pre-Retirement Years (middle-aged men: four volumes); Dual Careers (mature women: four volumes); Years for Decision (young women: three volumes); and Career Thresholds (young men: six volumes). In addition, over 200 reports on specific topics have been prepared by staff members of the Center for Human Resource Research and other researchers throughout the country who have acquired public-use versions of the NLS tapes.

The present volume is based on the surveys of young women through 1973. It differs from the previous volumes in the Years for Decision series in two major ways. First, it neither attempts to cover all aspects of the data comprehensively nor focuses on a single narrow topic. Rather, it consists of a set of interrelated studies on topics that are conceived to be important in understanding the educational, labor market and family experiences of young women. Second, rather than relying entirely on tabular analysis as have most of the previous volumes, all of the chapters except the introductory one employ multivariate statistical techniques.

While accepting sole responsibility for whatever limitations the volume may have, we wish to acknowledge our debt to a large number of persons without whose contributions neither the overall study nor the present volume would have been possible. The first acknowledgement must go to the several thousand members of the sample whose generous cooperation in repeated interviews has provided the raw materials for our endeavor.

Several officials of the Employment and Training Administration have been very helpful over the years in providing suggestions for the design of the NLS and in reviewing carefully the preliminary drafts of our reports. We wish to acknowledge especially the continuous support and encouragement of Howard Rosen, Director of the Office of Research and Development, and the valuable advice provided by Stuart Garfinkle, Jacob Schiffman, Rose Wiener, and Ellen Sehgal, who have at various times over the years served as monitors of the NLS project. In addition, a number of individuals in the Bureau of Labor Statistics read portions of the manuscript and provided us with numerous helpful comments.

The research staff of the Center for Human Resource Research has enjoyed the continuous expert and friendly collaboration of personnel of the Bureau of the Census, who have been responsible for developing the samples, conducting all of the interviews, coding and editing the data, and preparing the initial versions of the computer tapes. We should like to acknowledge especially our debt to Earle Gerson, Chief of the Demographic Surveys Division and to his predecessors Daniel Levine and Robert Pearl; to Robert Mangold, Chief of the Longitudinal Surveys Branch; to Marie Argana, his immediate predecessor; and to their colleagues Sharon Fondelier, Pat Healy, Carrol Kindel, Dorothy Koger, and Thomas Scopp. These are the individuals in the Census Bureau with whom we have had immediate contact in the recent past. In addition, we wish to express our appreciation to Kenneth Frail of the Field Division for directing the data collection; to David Lipscomb and Eleanor Brown and their staff of the Systems Division for editing and coding the interview schedules; and to Kenneth Kaplan and Reginald Masano for the preparation of the computer tapes.

The process of revising the computer tapes received from the Census Bureau and producing all of the tables and regressions incorporated in this volume was the responsibility of the Data Processing Unit of the Center for Human Resource Research under the direction of Carol Sheets and her predecessor Robert Shondel. Especial thanks go to Janie Campanizzi, Rufus Milsted, Jack Schrull, R. Barry Shuman, Pam Sparrow, Tom Steedman, Keith Stober, Ron Taylor, and Pete Tomasek whose programming and other technical assistance were of invaluable assistance to us in preparing this particular report.

Herbert S. Parnes provided us with his continuing guidance and advice. We also owe debts of gratitude to our colleagues Stan Benecki, Steven Hills, Gilbert Nestel and Lois Shaw of the Center who generously provided of their time in carefully reviewing the various drafts of this volume. In addition, thanks go out to our ex-colleagues John T. Grasso, Andrew I. Kohen and Richard Shortlidge who provided helpful comments. In addition to the research assistance mentioned in the specific chapters we would like to particularly acknowledge the work of R. Jean Haurin and Ellen Mumma who, over a period of many months, carried out the thankless task of coordinating, fact checking, proofing and editing this volume.

Finally, the authors are especially indebted to Jeanie Barnes who impeccably typed endless versions of this report, always with a tight deadline and always with a smile. Her ability to translate unreadable scribbles into the English language was nothing short of miraculous. For her skillful assistance we are most grateful.

Frank Mott
November 1977

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CHAPTER 1

INTRODUCTION AND CONCLUSIONS

Frank Mott

Thirty years ago, a volume focusing on the labor market activity of young women would probably have been prefaced by a statement pointing to such work as a transitory activity between school and assuming the family responsibilities of marriage. Women who maintained a continuing lifetime attachment to the labor force were exceptions to the norm. Thus, counseling and guidance for young women of high school and post-high school age were predicated on the assumption that their labor market activity would, generally speaking, be temporary.

What this volume will demonstrate is that the dogma of an earlier generation would be counterproductive for young women reaching adulthood in the seventies. While the woman graduating from high school or college in 1977 will in all likelihood marry and have a couple of children, she will also probably spend a major portion of her life at work in the labor market. To be sure, for most women, the birth of a first child will be associated with a withdrawal from the labor force, but only temporarily. For a variety of reasons, women will probably maintain ties to the labor force to a degree unparalleled in the history of this country. To fail to make this clear to the current generation of young women approaching adulthood is to do a disservice both to them and to the society at large. The adolescent woman must be encouraged to acquire job related skills that will serve her for a lifetime of work activity.

PLAN OF THE VOLUME

The studies in this volume provide the empirical basis for and an elaboration of the thesis presented above. Based on a comprehensive set of data obtained through personal interviews with a national sample of young women over the period 1968 to 1973, they all focus either on aspects of the labor market experience of the current generation of young women or on facets of their lives that have substantial relationships to their labor market activity.

The remainder of this chapter describes the data base and presents an overview of the patterns of change in the lives of the young women over the five-year period covered by the study as well as highlights from the various chapters. Chapter 2 examines an aspect of the preparation for the world of work--college attendance. More specifically, it investigates the factors associated with desires and expectations for higher education, as well as actual college attendance. The factors determining the quality of the institution a woman attends are also explored. These are important topics since they have profound implications for the future labor market behavior and experience of the young women.

Chapter 3 focuses on the labor force dynamics associated with withdrawal from and reentry into the labor force when a woman bears her first child. This chapter studies in great detail a point in the life cycle that has heretofore been examined only superficially, and suggests several socioeconomic rationales for the differences between white and black behavior patterns. It also provides dramatic evidence of the strong labor force attachment of many young mothers.

Shifting somewhat from current to prospective labor force activities, Chapter 4 explores the characteristics of young women that are associated with the choice of an "atypical" occupation, i.e., one traditionally considered to be a "male occupation." The chapter also seeks to ascertain whether young women are anticipating kinds of work in which future demand is expected to be strong. Also employing the longer time span, Chapter 5 addresses the question of whether investment in on-the-job training is related to an expectation of long-term attachment to the labor force. That is, are women who anticipate extensive lifetime labor force attachment more likely than their less committed counterparts to take jobs with larger training components (and lower initial wages)?

Chapter 6 analyzes some of the causes as well as the consequences of migration for the economic welfare of young women and their families. The importance of this topic is indicated by the fact that about one-third of the young women were living in a different county or metropolitan area in 1973 than in 1968.

Marital disruption is another phenomenon that affects the lives of surprisingly large numbers of young women. About 12 percent of the white women and more than 30 percent of the black who were married at any time between 1968 and 1973 experienced a separation or divorce during that five-year period. Chapter 7 examines some of the determinants of marital disruption, and also analyzes in some detail the short run economic consequences for the women and their children. The longitudinal nature of the data make them ideal for this kind of analysis, for one can follow the same young women from an intact marriage, through the disruption transition process, and into the early phases of postdisruption life.

THE NATIONAL LONGITUDINAL SURVEYS OF YOUNG WOMEN

The Sample

In early 1968, the U.S. Bureau of the Census, under contract with the Employment and Training Administration of the U.S. Department of Labor, interviewed a nationally representative cross-section of 5,159 young women aged 14 to 24, including 3,638 white and 1,459 black respondents.[1] Black women were deliberately oversampled to provide a sufficiently large number of blacks for statistically reliable racial comparisons.[2] These women were reinterviewed each year through 1973. The interviews included extensive batteries of questions relating to their education, employment, family life and a host of other characteristics that were hypothesized to affect or reflect labor market experience.[3]

As of the 1973 survey, fully 4,424 of the original 5,159 respondents were still being interviewed, representing 85.8 percent of the original sample--86.5 percent of the whites and 84.3 percent of the blacks. Thus, reflecting the diligent field work of the Bureau of the Census, attrition from the sample has been relatively low and no major nonresponse biases are known to exist. Appendix Table 1A.1 presents in some detail the relatively minor variations in response rates by selected characteristics for this sample between 1968 and 1973.

Reflecting the sampling procedures utilized by the Bureau of the Census, both the separate black and white samples as well as the combined race sample must be appropriately weighted in order to provide accurate population estimates. For this reason, unless otherwise specified, all of the tabular and multivariate analyses in this volume are based on weighted data. However, in all of the tabular and multivariate material the "number of respondents" refers to the unweighted number of young women in the sample studied.

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[1] The interviews with these young women have continued beyond the 1973 interview round. Relatively brief telephone interviews have been accomplished in 1975 and 1977 and a lengthy personal interview will be completed in 1978. Additional interviews with this cohort are being contemplated for 1979, 1981 and 1983.

The National Longitudinal Surveys also include continuing interviews with three other cohorts: men 45 to 59 and 14 to 24 years of age when first interviewed in 1966, and women aged 30 to 44 years when first interviewed in 1967. See The National Longitudinal Surveys Handbook, Center for Human Resource Research, The Ohio State University, August 1976, for a complete description of these surveys.

[2] For a detailed description of the sampling, interviewing and estimating procedures, see Appendix A. The overall sample also included 62 respondents of races other than white or black who are included in the analyses of this volume.

[3] The complete interview schedules for the 1968 and 1973 surveys are included at the end of the volume.

Nature of the Data

The uniqueness of the National Longitudinal Surveys rests in the panel nature of the data; that is, information is provided at a number of points in time for the same group of respondents. Thus, it is possible to examine in some detail the dynamics of a young woman's activities. For example, from an employment perspective, one can follow a woman job by job through the 1968 to 1973 period. One can also view changes in her educational activities and in her family and household status. Obviously, all of these and other behavior patterns can be juxtaposed, depending on one's research interests, with a view to ascertaining the relationships that exist both at a given point in time and over time. In this context, the longitudinal character of the data permits one to go much further in establishing directions of causation than is possible with cross-sectional data. For example, the fact that attitudes or psychological orientations measured at one point in time are related to subsequent behavior increases the likelihood that the attitude is conditioning rather than merely reflecting the behavior.

A number of the chapters in this volume take advantage of this unique longitudinal dimension of the data set. The chapter on college attendance follows young women from their final high school year through the early posthigh-school years, comparing the likelihood of college attendance for women with different background characteristics. The following chapter, which focuses on work activity surrounding the first birth event, examines the ability of women to attain their prebirth wage and occupational status in their first postbirth job; an analysis that is possible only with a data set which follows the same women over a period of time.

Chapter 6, which examines the socioeconomic determinants and consequences of geographic mobility, also utilizes longitudinal aspects of the data set by comparing locational characteristics of the same women at different points in time, examining in particular, income and work-related characteristics of the respondents before and after the moves. Without the temporal dimensions of the data set, much of this analysis would not be possible. Finally, the NLS data make it possible to examine in great detail socioeconomic determinants and consequences of the marital disruption process. Thus, most of the analyses in this volume are heavily contingent on the availability of panel data and, as such, could not have been as successfully accomplished with standard cross-sectional data and methodological procedures.

1968 to 1973: A DESCRIPTIVE OVERVIEW

For a substantial portion of the cohort of young women under consideration in this volume, the years between 1968 and 1973 represent a period of maturation. The youngest five-year age group, all of

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whom were in their teens when the study began, were 19 to 23 in 1973. Thus, for many of these women, the five-year interval encompassed leaving school, labor market entry, marriage or the forming of other permanent relationships, and childbearing.

In addition to this maturational process, the 1968 to 1973 period is often felt to be a period of significant social change which might be evidenced by changes in family formation patterns, work behavior and attitudes for women of a given age. For this reason, in addition to highlighting overall trends for the entire NLS young woman's cohort over the half decade, separate comparisons are made, where appropriate, between women who were 20 to 24 in 1968 and those of the same ages in 1973.

Changes in Household and Family Status

Figure 1.1 highlights in a summary manner many of the maturational patterns of change. The proportion of the cohort enrolled in school declined from 52.1 to 13.4 percent for the white young women and from 48.2 to 13.3 percent for their black counterparts.[4] Paralleling this decline, there were major shifts in household and marital patterns, as evidenced by the sharp decline in the proportions of young women living with their parents and the concomitant increase in the percentages who were married. As may be noted in Tables 1.1 and 1.2, there are significant racial variations in some of these changes. Whereas in 1968 the household compositions and marital statuses of the young black and white women are somewhat similar, by 1973 there are dramatic distinctions. In 1973, 42 percent of the black women had never been married and 17 percent were either separated, divorced or widowed, compared with only 27 and 6 percent, respectively, for the white women. Whereas two-thirds of the white women are in an intact marriage, only two-fifths of the black women are living with husbands. Parallel differences between blacks and whites are evident in the data on household status. Black women in 1973 are somewhat more likely than white to be living with their parents and are twice as likely to be in a living arrangement that does not include either parents or a husband. These data suggest that from the perspective of living arrangements, the transition to adulthood for the average black woman may be far more complex than for her white counterpart. They also suggest that substantially greater proportions of young adult black women need employment as a primary means of supporting themselves during this difficult transitional period.

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[4] Because of the many social and economic differences between the black and white young women, virtually all of the discussion in this and subsequent chapters will be based on separate racial analyses.

Figure 1.1 (A and B) Trends in Selected Sociodemographic Characteristics for White and Black Women, 1968 to 1973

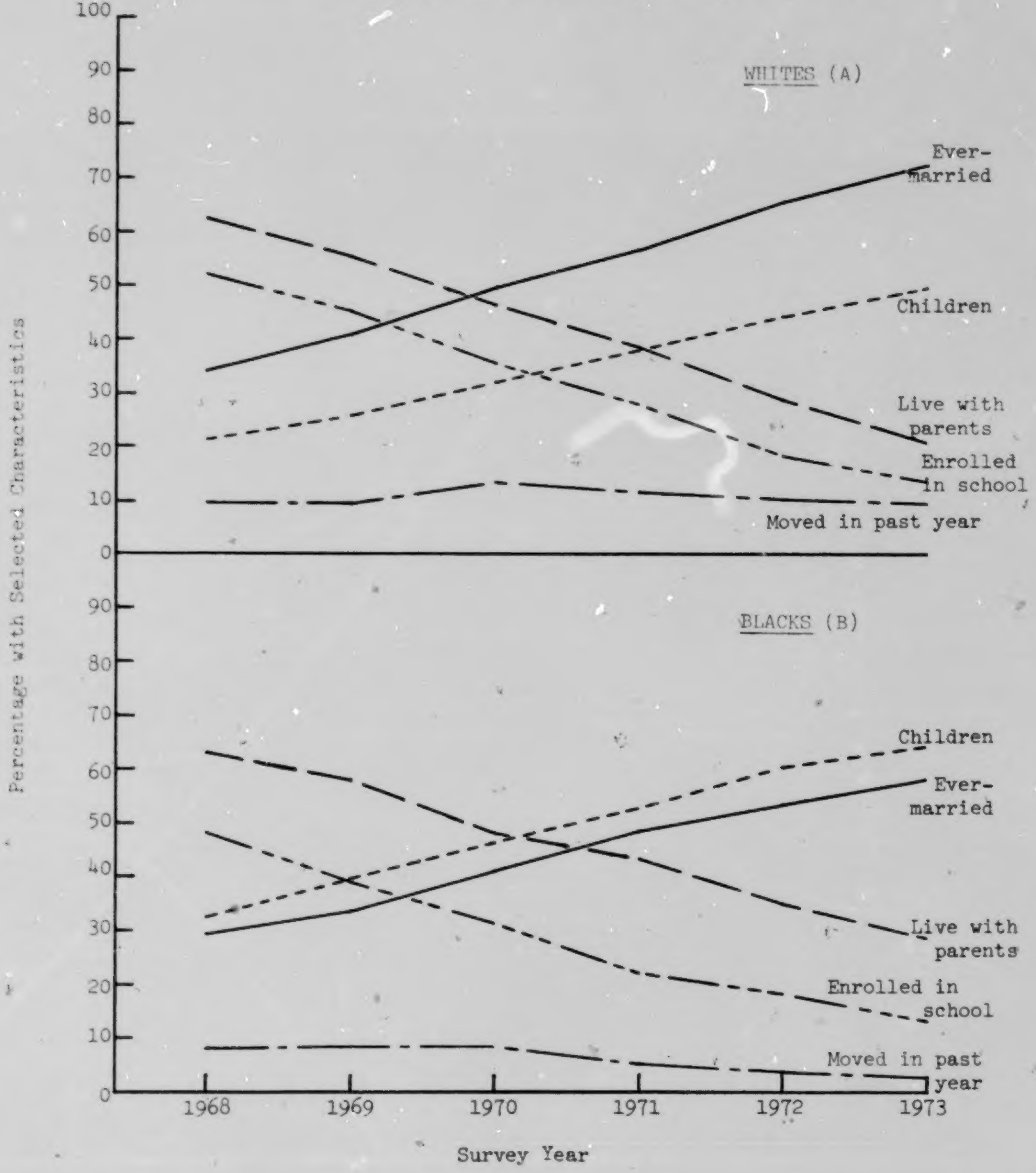

Table 1.1 Change in Household Structure between 1968 and 1973, by Race[a]

(Percentage distributions)

Household status 1968	Number of respondents	Household status 1973				Vertical percentage distribution
		Total percent	Lived with parents[b]	Lived with husband	Other	
	WHITES					
Total or average	3,146	100.0	20.5	64.2	15.4	100.0
Lived with parents[b]	1,930	100.0	31.6	52.3	16.1	62.2
Lived with husband	981	100.0	2.2	90.3	7.5	30.0
Other	235	100.0	2.4	57.9	39.7	7.9
	BLACKS					
Total or average	1,230	100.0	28.6	39.1	32.2	100.0
Lived with parents[b]	796	100.0	40.5	31.3	28.2	63.2
Lived with husband	239	100.0	6.4	67.9	25.7	20.9
Other	195	100.0	10.4	32.6	57.0	15.8

[a] Universe consists of respondents who were interviewed in 1968 and 1973.

[b] Includes very small percentages (less than 2 percent) of respondents living with parents and husband.

Table 1.2 Change in Marital Status between 1968 and 1973, by Race[a]

(Percentage distributions)

Marital status 1968	Number of respondents	Marital status 1973				Vertical percentage distribution
		Total percent	Never married	Married, spouse present or absent	Separated, divorced or widowed	
				WHITES		
Total or average	3,146	100.0	27.4	66.2	6.4	100.0
Never married	2,015	100.0	41.8	53.9	4.2	65.5
Married, spouse present or absent	1,064	100.0	0.0	91.3	8.6	32.3
Separated, divorced or widowed	67	100.0	0.0	59.2	40.4	2.0
				BLACKS		
Total or average	1,230	100.0	41.7	41.6	16.7	100.0
Never married	898	100.0	58.6	33.4	8.1	71.1
Married, spouse present or absent	291	100.0	0.0	66.8	33.2	25.4
Separated, divorced or widowed	41	100.0	0.0	26.9	71.6	3.5

[a] Universe consists of respondents who were interviewed in 1968 and 1973.

While a comparison of statuses at just two points in time five years apart is an obvious simplification of the dynamics of change, there is one other major point worth noting in Tables 1.1 and 1.2. Whereas black women were less likely to move into a marriage during the half decade, they were much more likely to move out of marriage. About one-tenth of the white women who were married in 1968 were either separated, widowed or divorced in 1973, compared with one-third of their black counterparts. This large and growing group requires special employment-related assistance, a fact highlighted in Chapter 7.

Tables 1.3 and 1.4 suggest that these cohort trends in changes in family and marital status represent more than just an aging process. Comparing black and white young women who were 20 to 24 years of age in 1968 with women the same age in 1973, certain secular trends may be noted. There appears to be a trend toward delayed marriages as indicated by higher proportions never married in 1973 and lower proportions married and living with their husbands. Also, the proportion of women age 20 to 24 who were separated or divorced increased over the five year period. All of these changes are consistent with the significantly greater proportions of white and black women living in "other" household relationships--not with parents or a husband. Indeed, by 1973, about 19 percent of white and fully a third of black 20 to 24 year old women were not living with either their parents or their spouse. On average, these women presumably may have a greater need for self earned income than women living in other household arrangements.

Paralleling these rather dramatic changes in household and marital status are sharp increases in the percentage of women with children. Figure 1.1 depicts the overall trend, and Table 1.5 describes the pattern in greater detail. The percentage of white women who have had at least one child increases from slightly under one-fourth to about one-half during the five-year period, and the corresponding proportion of black women increases from one-third to about two-thirds. The data indicate that this childbearing period is far from complete--consistent with the knowledge that the youngest women in the study are only 19 years of age as of 1973. Over 60 percent of the white and 50 percent of the black women who had no children in 1968 still had not given birth by 1973.

Table 1.6 indicates somewhat more fully the demographic transition process these women are currently undergoing. Only about 6 percent of those white women who were 15 to 19 in 1968 had borne a child as of that date. By 1973, about 36 percent of this group had borne at least one child. Shifting momentarily from one age group to another, between 1968 and 1973, the proportion of women who were mothers among those who were 20 to 24 in 1968 increased from about 43 to 71 percent.

Whereas the above represents the increase in motherhood due to aging per se, a not surprising phenomenon, the secular change for a

Table 1.3 Household Structure for Selected Age Groups in 1968 and 1973, by Race[a]

(Percentage distributions)

Household structure	1968		1973	
	Age 15-19	Age 20-24	Age 20-24	Age 25-29
	WHITES			
Number of respondents	1,571	1,301	1,571	1,301
Total percent	100.0	100.0	100.0	100.0
Lived with parents[b]	86.0	28.9	26.9	7.0
Lived with husband	9.0	58.1	54.3	80.2
Other	4.9	13.0	18.7	12.8
	BLACKS			
Number of respondents	686	426	686	426
Total percent	100.0	100.0	100.0	100.0
Lived with parents[b]	80.9	34.9	33.7	16.2
Lived with husband	7.7	41.0	32.9	51.2
Other	11.4	24.1	33.5	32.6

[a] Universe consists of respondents who were interviewed in 1968 and 1973.

[b] Includes very small percentages of respondents living with parents and husband.

Table 1.4 Marital Status for Selected Age Groups in 1968 and 1973, by Race[a]

(Percentage distributions)

Marital status	1968		1973	
	Age 15-19	Age 20-24	Age 20-24	Age 25-29
	WHITES			
Number of respondents	1,571	1,301	1,571	1,301
Total percent	100.0	100.0	100.0	100.0
Never married	88.6	34.1	37.8	10.0
Married, spouse present or absent	10.7	61.8	56.5	81.9
Separated, divorced or widowed	0.8	4.0	5.8	8.0
	BLACKS			
Number of respondents	686	426	686	426
Total percent	100.0	100.0	100.0	100.0
Never married	88.6	44.1	52.9	22.7
Married, spouse present or absent	10.7	48.0	35.5	53.7
Separated, divorced or widowed	0.7	7.9	11.6	23.5

[a] Universe consists of respondents interviewed in 1968 and 1973.

Table 1.5 Change in Parental Status between 1968 and 1973, by Race[a]

(Percentage distributions)

Parental status 1968	Number of respondents	Parental status 1973				Vertical percentage distribution
		Total percent	No children	Youngest preschool (0 to 4)	Youngest school age (age 5 or over)	
				WHITES		
Total or average	3,145	100.0	50.3	42.1	7.7	100.0
No children	2,436	100.0	63.8	36.0	0.2	78.4
Youngest preschool (age 0-4)	691	100.0	1.3	64.1	34.6	21.1
Youngest school age (age 5 or over)	18	100.0	0.0	57.3	42.7	0.5
				BLACKS		
Total or average	1,229	100.0	35.4	52.8	11.8	100.0
No children	847	100.0	50.9	48.7	0.4	67.5
Youngest preschool (age 0-4)	369	100.0	3.3	63.5	33.2	31.1
Youngest school age (age 5 or over)	13	100.0	0.0	10.4	89.6	1.3

[a] Universe consists of respondents who were interviewed in 1968 and 1973.

Table 1.6 Parental Status for Selected Age Groups in 1968 and 1973, by Race[a]

(Percentage distributions)

Parental status	1968		1973	
	Age 15-19	Age 20-24	Age 20-24	Age 25-29
	WHITES			
Number of respondents	1,570	1,301	1,570	1,301
Total percent	100.0	100.0	100.0	100.0
No children	94.3	57.4	64.2	28.9
Youngest preschool (age 0-4)	5.6	41.3	34.5	55.5
Youngest school age (age 5 or over)	0.1	1.2	1.3	15.6
	BLACKS			
Number of respondents	686	425	686	425
Total percent	100.0	100.0	100.0	100.0
No children	82.8	42.8	41.6	23.2
Youngest preschool (age 0-4)	17.2	54.1	55.2	53.2
Youngest school age (age 5 or over)	0.0	3.1	3.2	23.5

[a] Universe consists of respondents who were interviewed in 1968 and 1973.

given age group over the five-year period is actually in the opposite direction. Among white women, the proportion of 20 to 24 year olds without children increased fairly sharply from 57 to 64 percent, consistent with the marriage and household information noted earlier. This trend towards childlessness or a later average age for childbearing has major implications for the proportion of young adult women who can be expected to seek employment now and in the years ahead.

While the longitudinal dimensions of the NLS do not permit measuring secular changes in the fertility patterns of women age 25 to 29 in 1973, there is one important point concerning this group worth noting. Since the average black woman in the original 14-to 24-year-old cohort began her childbearing at a somewhat earlier age, she is now further along in her family building process than her white counterpart. That is, an examination of the distribution of 25-to 29-year-old black and white women by parent status indicates that even though a slightly higher proportion of the black women have borne a child by 1973; a significantly higher proportion of those with children now have a youngest child of school age (about 31 percent for black 25- to 29-year-old women compared with only 22 percent for the white women). This evidence strongly supports the notion (documented in some detail in Chapter 3) that this generation of black women intend to have only a limited number of children and either are or soon will be seeking meaningful employment opportunities for a lifetime of work.

Changes in Labor Force Participation

Whereas the association between childbearing and employment status may be noted from the overall labor force participation rates and the percentages of women with children described in Figures 1.1 and 1.2, the impact of the birth event and of changes in child status may be more directly noted in Table 1.7. Women who were without children both in 1968 and 1973 had by far the sharpest increases in labor force participation during the period. In 1968 their rates were only moderate, reflecting their younger average age and greater school enrollment rates. By 1973, the majority of these women had entered employment. In all likelihood, many in this group will show significant but temporary declines in their labor force participation in the immediate years ahead as they enter their childbearing years. White women who had their first child between 1968 and 1973 evidenced sharp declines in participation. whereas black women in this category evidenced a modest increase in participation. Even though all of these women had a child of preschool age in the home, about 42 percent of the white women and 57 percent of the black were in the labor force at the time of their 1973 interview. This group is analyzed in detail in Chapter 3. Finally, women who had their first child before 1968 had minor increases in participation during the period, partly reflecting the aging of their youngest child. White labor force participation

Figure 1.2 (A and B) Trends in Selected Socioeconomic Characteristics for White and Black Women, 1968 to 1973

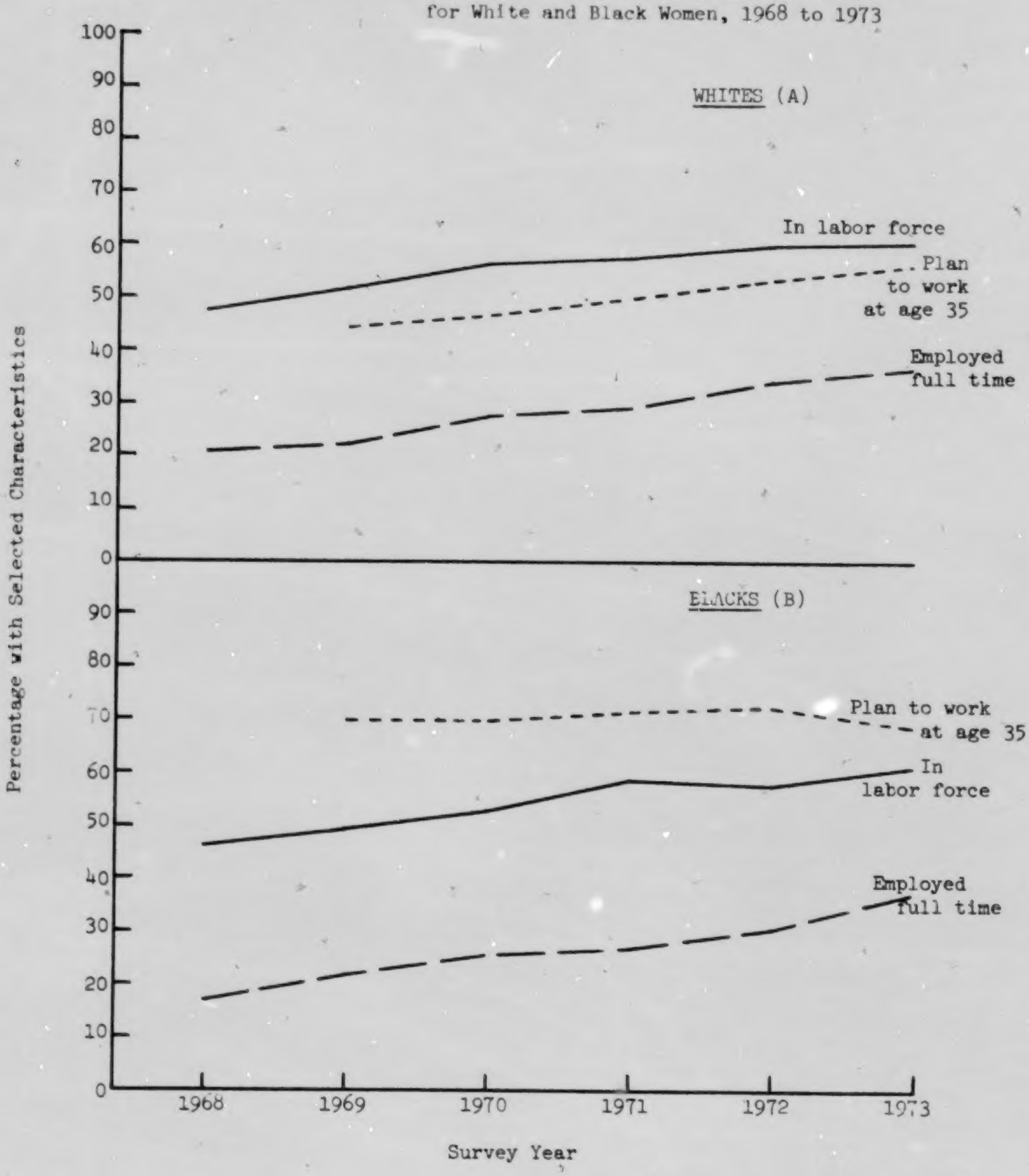

Table 1.7 Parental Status and Labor Force Transition between 1968 and 1973, by Race[a]

Parental status	Number of respondents	Comparison of 1968 and 1973 labor force status (percentage distributions)					Labor force participation rate		
		Total percent	Out 1968 in 1973	In 1968 out 1973	Out 1968 out 1973	In 1968 in 1973	1968	1973	Change 1968-1973
	WHITES								
Total or average	3,127	100.0	29.4	16.5	23.0	31.1	47.6	60.4	+12.8
Had no children by 1973	1,518	100.0	40.5	8.3	14.0	37.3	45.5	77.8	+32.3
Had first child between 1968 and 1973	901	100.0	14.9	34.1	24.2	26.8	60.9	41.7	-19.2
Had first child before 1968	708	100.0	22.4	12.9	42.4	22.3	35.2	44.7	+ 9.5
	BLACKS								
Total or average	1,215	100.0	29.9	13.9	24.3	31.9	45.8	61.8	+16.0
Had no children by 1973	421	100.0	41.3	6.9	22.0	29.8	36.7	71.1	+34.4
Had first child between 1968 and 1973	411	100.0	26.6	17.0	26.1	30.3	47.4	56.9	+ 9.5
Had first child before 1968	383	100.0	21.4	17.9	25.1	35.6	53.5	57.0	+ 3.5

a Universe consists of respondents who were interviewed in 1968 and 1973.

rates for this group increased about 9 percentage points compared with a more modest increase of 3 percentage points for the blacks.

The longitudinal character of the data set may be utilized to probe somewhat further into the dynamics of this labor force transition. For example, while the labor force participation rate for all white women in the sample increased by about 13 points between the 1968 and 1973 interview dates, in actuality about 16 percent of the women were in the labor force in 1968 and out in 1973. Conversely, 29 percent were out in 1968 but had entered by 1973. For the black women, labor force participation increased by 16 points representing a "netting out" of the 30 percent who entered the labor force and 14 percent who exited. These estimates are, of course, gross understatements of the actual flows into and out of the labor force during the period, as a given individual could well have had numerous such moves during the five-year period.

The above patterns are useful for describing the general nature of the association between work and childbearing. They also demonstrate that whenever one generalizes about such patterns for a group as diverse as a full cross-section of young women, one must be aware that there are substantial numbers of individuals whose experiences run counter to the described pattern. It may well be that these divergent groups, from program and policy perspectives, represent individuals with special and different needs. For example, it is not unreasonable to speculate that the 15 percent of all white women and 27 percent of all black women who gave birth to a first child between 1968 and 1973 and entered the labor force during that period represent women with a very high commitment or strong economic need to work. As such, they may well be especially worthy of careful analysis.

Much of the above discussion has highlighted changes in both demographic and labor force characteristics of young women associated with the maturation process as well as secular changes. The overall labor force participation changes cited largely reflect changes in household and family structure. Focusing once again somewhat more narrowly on the 20- to 24-year-old groups in 1968 and 1973, some rather dramatic short term secular changes may be noted. The overall labor force participation rate for white 20 to 24 year olds increased from about 58 to 66 percent in the short five-year period (Table 1.8). It is to be noted that this secular chnage does not reflect a demographic phenomenon but rather a dramatic 11 point increase in the participation rate of 20- to 24-year-old women with children between the survey dates. A smaller, but still notable trend was evidenced for black women. Thus, independent of all the demographic factors noted earlier, there have been major changes in the willingness and desire of young women with children to participate in the labor force.

Several secular trends have been documented or at least alluded to above. They include apparent changes in patterns of household and

Table 1.8 Labor Force Participation Rates for Selected Age Groups in 1968 and 1973, by Race and Parental Status[a]

Parental status	1968		1973	
	Age 15-19	Age 20-24	Age 20-24	Age 25-29
	WHITES			
Number of respondents	1,564	1,290	1,564	1,290
Total or average	42.4	57.8	65.7	53.4
Child on survey date	36.6	34.4	45.5	41.1
No child on survey date	42.7	75.5	77.0	84.2
	BLACKS			
Number of respondents	679	419	679	419
Total or average	38.2	60.5	62.8	61.7
Child on survey date	52.2	51.4	57.2	57.2
No child on survey date	35.2	73.7	71.2	76.9

a Universe consists of respondents who were interviewed in 1968 and 1973.

family relationships, changes in childbearing patterns as well as secular increases in working propensities. All of these factors undoubtedly represent components of the generally acknowledged movement towards greater equality between the sexes in the rights and responsibilities of adulthood.

Changes in Other Work-Related Characteristics

Not only was there a significant net movement into the labor force between 1968 and 1973, but for those women working at both points in time there is some evidence of occupational upgrading during that period. As may be noted in Table 1.9, the proportion of employed white women in professional jobs increased from about 15 to 22 percent. For black women the increase was from about 6 to 12 percent. For both white and black women, there were increases in other white collar employment and significant declines in employment in service occupations. For whites, much of the occupational upgrading reflected the movement out of school by women who were employed at both points in time, as evidenced by significant increases in professional and other white collar employment for 15 to 19 year olds between 1968 and 1973 but only marginal increases for 20 to 24 year olds. For blacks, occupational upgrading was more evenly divided between women who were aged 15 to 19 in 1968 and women who were 20 to 24, reflecting at least in part the more delayed entry of blacks into the nonstudent labor force.

Coincident with the occupational upgrading were increases in real hourly wages (in 1967 dollars) for women of both races who were working in both years. For whites, the increase was from $1.55 to $2.22, or 43 percent; for blacks, average hourly earnings rose from $1.48 to $1.95, an increase of 32 percent. Thus, there is evidence of increased earnings over time associated with increased work experience and, perhaps, with maturation per se. This issue is considered in some detail in Chapter 5.[5]

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[5] Two other factors normally considered to be associated with changes in labor force participation levels showed no significant association with changes in work in overview tables and thus are not noted here. First, while substantial proportions of black and white women (24 and 33 percent respectively) were living in a different county in 1973 than in 1968, there were no differences in participation levels at this gross level of analysis. This issue is considered more carefully in Chapter 6. Second, black and white women who evidenced a health condition in 1968 and 1973 had labor force rates not significantly different from women healthy at both points in time. It should be noted that for both races, the "ill health" group is extremely small, representing only 2.7 percent of all white and 3.5 percent of all black women.

Table 1.9 Occupational Distribution for Selected Age Groups in 1968 and 1973, by Race[a]

(Percentage distributions)

Occupational distribution	All respondents			Age 15-19 in 1968			Age 20-24 in 1968		
	1968	1973	Change 1968-1973	1968	1973	Change 1968-1973	1968	1973	Change 1968-1973
	WHITES								
Number of respondents	825	825		364	364		415	415	
Total percent	100.0	100.0		100.0	100.0		100.0	100.0	
Professional	15.5	22.1	+ 6.6	4.1	15.2	+11.1	25.4	29.3	+ 3.9
Other white collar	44.7	52.7	+ 8.0	44.6	56.5	+11.9	47.3	48.4	+ 1.1
Blue collar	10.5	11.2	+ 0.7	9.7	11.1	+ 1.4	11.8	11.6	- 0.2
Service	29.3	14.0	-15.3	41.6	17.3	-24.3	15.5	10.7	- 4.8
	BLACKS								
Number of respondents	273	273		103	103		155	155	
Total percent	100.0	100.0		100.0	100.0		100.0	100.0	
Professional	6.2	11.7	+ 5.5	2.1	7.1	+ 5.0	9.6	15.5	+ 5.9
Other white collar	34.3	39.8	+ 5.5	36.3	44.3	+ 8.0	33.1	36.3	+ 3.2
Blue collar	21.4	21.8	+ 0.4	16.6	21.7	+ 5.1	25.5	23.5	- 2.0
Service	37.9	26.4	-11.5	45.0	26.8	-18.2	31.5	24.7	- 6.8

[a] Universe consists of respondents who were interviewed and employed in 1968 and 1973.

Some Perspectives on Attitude Changes

There is very little evidence of unhappiness with work among those women in our sample with the most extensive work attachment. Focusing on those women employed in 1968 and 1973, fully 90 percent of the white and 85 percent of the black women said they liked their 1968 jobs (Table 1.10). There were only minor changes in these feelings between 1968 and 1973 as the proportion who liked their jobs "very much" declined about 10 percentage points during that period, being offset by a corresponding rise in the proportion who liked their job "somewhat." Also at the disaggregated level, it is of some interest to note that whereas fewer than 10 percent of those who liked their jobs in 1968 disliked their jobs in 1973, more than 80 percent of those who had disliked their jobs in 1968 liked them in 1973. (There was no difference in the responses of 15 to 19 year olds in 1968 and 20 to 24 year olds in this regard.) There are several possible explanations for this. First, unhappy workers are probably more likely to leave the labor force if they have the option to do so. Second, unhappy workers undoubtedly are more likely to change jobs in a search for more satisfactory working conditions.

In addition to the specific feelings of job satisfaction of the working group of women, there is evidence of profound change between 1968 and 1972 in the attitudes of young women toward the propriety of labor market activity on the part of mothers of young children.[6] One might anticipate some shift toward more positive attitudes about work among young women as they mature, marry, and gain work experience. However, of greatest interest is the question of whether there are secular forces at work which have caused women with the same characteristics to be more positively disposed toward work outside the home. Table 1.11 provides some dramatic evidence in this regard. Within a given year (either 1968 or 1972), there is only weak evidence of shifts towards more positive work attitudes as one moves from younger to older respondents. However, if one compares 18 to 21 or 21 to 24 year olds *across* years, there are large shifts towards more positive attitudes. For example, the proportion who believe that it is all right for a young mother to work if the husband and wife agree increased

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[6] These are the only two years in which this series of work attitude items were asked. The questions read as follows: "Now I'd like for you to think about a family where there is a mother, a father who works full time and several children under school age. A trusted relative who can care for the children lives nearby. In this family situation, how do you feel about the mother taking a full time job outside the home? (a) If it is absolutely necessary to make ends meet (b) If she prefers to work and her husband agrees (c) If she prefers to work, but her husband does not particularly like it."

Table 1.10 Comparison of Job Satisfaction in 1968 and 1973, by Race[a,b]

(Percentage distributions)

Feelings about 1968 job	Number of respondents	Feelings about 1973 job				Vertical percentage distribution
		Total percent	Like much	Like somewhat	Dislike	
	WHITES					
Total or average	512	100.0	51.2	39.6	9.2	100.0
Like much	307	100.0	56.3	36.3	7.4	60.4
Like somewhat	155	100.0	42.2	46.5	11.3	29.6
Dislike	50	100.0	46.7	38.9	14.4	10.0
	BLACKS					
Total or average	200	100.0	46.7	42.5	11.1	100.0
Like much	108	100.0	53.5	35.5	11.0	54.9
Like somewhat	65	100.0	35.7	57.9	6.4	29.8
Dislike	27	100.0	42.6	38.4	19.0	15.6

a Universe consists of respondents who were employed in 1968 and 1973.
b Job satisfaction is based on responses to the question: "How do you feel about the job you have now?"

Table 1.11 Percentage of Women with Positive Reactions to Work Role for Women in 1968 and 1972, by Age and Conditions of Work[a,b]

Age and work conditions	Percent with positive response	Percent with positive response
	1968	1972
18 to 21 years		
Number of respondents	1,766	1,799
All right to work if:		
(1) economic necessity	91.2	93.6
(2) husband and wife agree	65.5	80.0
(3) even if husband disagrees	12.0	24.3
21 to 24 years		
Number of respondents	1,362	1,839
All right to work if:		
(1) economic necessity	90.7	94.6
(2) husband and wife agree	66.7	83.4
(3) even if hustand disagrees	12.6	26.6

[a] Universe consists of respondents who were interviewed in 1968 and 1972.

[b] For descriptions of questions, see footnote 6.

from 66 to 80 percent for 18 to 21 year olds and from 67 to 83 percent for 21 to 24 year olds in the four-year period. Large increases also occur in the item asking if it is all right to work even if the husband disagrees.

Table 1.12, which focuses more narrowly on the responses of ever-married women, shows the same trends. When the question is whether labor market activity by the mother of young children is appropriate if her husband agrees, the proportions of positive responses among (the same) white women increased sharply from about 68 to 85 percent over the four-year period. The same pattern was found when married 15 to 19 and 20 to 24 year olds were examined separately. Less dramatic increases occurred for black women, reflecting the higher level of positive responses by these women in 1968. It is also of some interest to note that whereas only 12 percent of the white women who gave a positive response in 1968 had shifted to a negative response by 1972, fully 79 percent of those who had a negative attitude in 1968 had changed their positions by 1972. All of this suggests that there are social forces at work that are altering women's basic perceptions of their role toward a stronger work orientation. That these attitude changes are reflected in actual behavior will be evident from the analyses in several of the following chapters.

Highlights of the Volume and Some Policy Implications

The research presented in this volume focuses, directly and indirectly, on questions associated with the prospective lifetime work activities of women who are in their early adult years. It is clear that a substantial proportion of all such women, for varying reasons, will spend a major part of their lives in the labor force. This volume considers several factors associated with this trend including the educational and training experiences of women now reaching adulthood, rationales associated with work attachment during the early years of marriage, and the implications of marital breakdown and of family mobility patterns for work and career.

In several important ways, the potential quality of the lifetime work experience is contingent on the respondent's background. Not only do parental factors directly affect the quantity and quality of a young woman's educational experiences (Chapter 2), they also have a significant effect on the type of career path a woman plans to follow (Chapter 4). In addition, the direct impact of parents on a daughter's educational desires, expectations and actual experiences will ultimately alter both the quantity and quality of her adult work behavior.

We have found, not unexpectedly, that social class background, particularly parental income, is a powerful determinant both of the likelihood of college attendance and of the quality of the college attended. This social class factor operates by affecting a youth's

Table 1.12 Comparison of Percentage of Women Who Feel It Is Acceptable to Work Full Time If Their Husbands Agree, 1968 and 1972, by Race[a,b]

Attitude 1968	Number of respondents	Percent with positive attitude in 1972	Vertical percentage distribution
		WHITES	
Total or average	1,151	85.2	100.0
Positive attitude	787	88.0	67.6
Negative attitude	364	79.3	32.4
		BLACKS	
Total or average	343	91.4	100.0
Positive attitude	296	93.3	86.1
Negative attitude	47	81.3	13.8

[a] Universe consists of ever-married respondents who were interviewed in 1968 and 1972.

[b] See footnote 6 for full definition of question. "Negative attitude" includes a small number of "no opinions" or "Don't knows."

educational desires and, more directly, by determining at least partially her ability to afford college.

Whereas the above conclusion is perhaps not surprising, what is of more than academic interest is the rather striking fact that the lesser likelihood of black youth to desire and actually attend college can be fully explained by the different socioeconomic characteristics of the two racial groups. In other words, a black young woman with socioeconomic background characteristics similar to the average white youth is, if anything, more likely to desire to attend and actually attend college.

As a corollary to this economic theme, there is evidence that the parental income factor becomes even more dominant as a predictor of college attendance during periods of high unemployment. Thus, all the evidence in this volume is highly consistent with the thought that equality of education, particularly at the college level, might be furthered through income subsidizing measures which would enable more students from low income environments to attend college. This statement is relevant not only with regard to attendance per se, but equally with regard to a youth's ability to attend college commensurate with her ability.

Moving from the dynamics of the educational attainment process into the early years of work attachment, the importance of socioeconomic factors continues to be evident. Whereas virtually all women work at some point after leaving school but before the birth of their first child, major racial and socioeconomic differences begin to appear as the birth event approaches (Chapter 3). First, black young women, particularly the better educated, are much more likely than white women to be out of the labor force for only a short time in connection with the birth of their first child. In addition, the black woman not only returns to the work force more quickly but is much more likely to seek full-time employment when she does return. Indeed, over 80 percent of the black women who return to the labor force ultimately work at least 35 hours a week. This is as high a proportion working full time as before the birth. Also, for both black and white women who return to the labor force, the better educated are much better able to improve on the wages and occupational status of their prebirth job.

We have already noted that, if given the option, black women will seek more and higher quality education. This education, in turn, enhances their ability not only to maintain closer ties with the work force but to enjoy superior occupational status and remuneration. Indeed, there is clear evidence of a selectivity process: women capable of earning higher salaries in the labor market are more likely to maintain their work ties. Conversely, women with the least economic bargaining power--the less educated and skilled--are least likely to find and maintain employment at a reasonable wage level.

While it is evident that a substantial proportion of all women plan to have extensive ties with the labor market, the research reported in

Chapter 4 indicates that there still are extensive labor market information lags that impede appropriate career decisions. In general, when queried about their occupational plans for age 35, women tended to mention only a limited number of occupations, most of which are jobs that have been traditionally held by women. Thus, it appears that the "women's liberation" movement has not yet made significant inroads into the career thinking of young women. Moreover, some of these traditionally female occupations represent economically irrational choices under existing circumstances. For example, among the college educated, about one-third of the white women and almost a quarter of the black plan to be in a teaching profession by the time they reach age 35. This is an occupational area which currently does not offer the best job prospects. There is, however, some cause for optimism in this regard; between 1968 and 1973 there were decreases in the proportions planning to enter teaching as a career, perhaps reflecting a salutary effect of maturation on a young woman's sophistication about the world of work.

The fact that women are to a greater degree planning more extensive commitments to the labor force than had been true in the past has major implications, some of which are highlighted in Chapter 5. One may expect that young women will display a greater willingness to accept occupational training for general as well as specific job skills even at the cost of lower initial wages. In other words, there is evidence that women with stronger prospective attachments to the labor force are more willing to accept lower initial wages as a price they must pay for a current job providing training and thereby promising higher lifetime earnings.

Parenthetically, it is useful to speculate about the possible impact of this increasing level of work activity among young women for the work prospects of subsequent generations. To the extent that we are now witnessing a secular change in the likely lifetime work patterns of women, supply and demand patterns for specific occupations may be different in the future than they have been in the past. For example, most women have traditionally withdrawn from the labor force during the family formative years, sometimes returning for a "second career" as their youngest child ages. These traditional patterns of labor force participation opened up many job slots for new graduates in an occupation like teaching. To the extent that the current generation of women will no longer interrupt their careers when children are born, jobs available for new entrants into the labor market will become more limited. In times of high unemployment as at present, this situation is likely to be exacerbated for women will have a greater tendency to "hang on" to their jobs, in the justified fear that if they quit they would have a more difficult time when seeking to return to work.

While the teaching profession, is admittedly a rather extreme illustration of this phenomenon, many other occupations, even those with relatively strong growth potential, could have been cited. The fundamental point is that, at least for the transition generation, major changes in women's labor force withdrawal patterns may well be closely associated with greater labor force entry problems and, concomitantly, higher levels of youth unemployment. Within this context, it is useful to emphasize once more the lesson to be learned from Chapter 4; career guidance must make women aware of a broader range of possible jobs and careers than has traditionally been the case. This would increase the flexibility of young women in seeking jobs or formulating career ideas during a period when many of the traditional avenues of employment offer only limited prospects for success.

Two other major events in the lives of many young adult women--migration and marital disruption--also have major implications for their labor force behavior. Chapter 6 highlights the major negative impact that the family migration decision can have on both the wife's attachment to the labor force as well as her annual earnings. The research suggests that migration not only reduces the wife's earnings on average but, as a direct result of this reduction, reduces total family earnings as well. In other words, the increased earnings of the husband that accompany migration do not, on the average, compensate for the loss of earnings of the wife. From a purely economic perspective one might thus question the desirability of many moves. However, the results are consistent with the idea that economics may well not be the major motivating force behind many families' moves--at least in the short run.

Whereas migration tends to be associated with reduced levels of work attachment, Chapter 7 shows clearly that the process of marital disruption generally increases attachments to the work force, particularly for white women. Thus, the ability to find meaningful employment enables women at least partially to compensate for the loss of a husband's earnings. The results suggest that white women are able to compensate for almost half of their husbands' earnings loss through employment after disruption; the corresponding statistic for black women is only about 15 percent. Partly as a result of this increase in earnings, white family income after the marital disruption (on a per capita basis) rapidly approaches predisruption levels. This recovery is not apparent for black families. Job related training, to which white women also apparently have greater access, contributes to this ability to cope economically, as women who receive training in the year immediately preceding a marital disruption tend to have higher earnings as well as lower levels of unemployment in the year following the disruption event.

As noted earlier, work discontinuities associated with child birth, tend increasingly to be brief. Work discontinuities and entry patterns associated with migration and marital disruption are two additional phenomena which affect large numbers of women and which are associated with a desire and need for remunerative employment. What should be readily apparent is that whereas most young adult women work, they also commonly encounter life cycle events which require at least a brief interruption in employment. Moreover, many of these women wish the discontinuity to be brief. The more effective the guidance, training, and other work-related information young women (especially those with limited formal education) receive, the greater the likelihood that the actual pattern of work interruptions will match their needs and desires.

Table 1A.1 Noninterview Rate, by Noninterview Reason, Selected Characteristics of Respondents in 1968, and Race

1968 Characteristics	Number interviewed 1968	Number interviewed 1973	Number leaving sample 1968-1973	Total attrition rate	Reason for noninterview (Percentage distributions)						
					Total percent	Unable to locate	Institutionalized	Refused	Deceased	Dropped from sample[a]	Other
All respondents[b]	5,159	4,424	735	14.2	100.0	15.2	0.5	56.6	3.0	18.0	6.7
Whites	3,638	3,146	492	13.5	100.0	10.2	0.6	64.6	2.2	15.4	6.9
Blacks	1,459	1,230	229	15.7	100.0	25.8	0.4	39.7	4.8	23.1	6.1
	WHITES										
Enrolled											
Age 14-19	1,532	1,350	182	11.9	100.0	13.7	1.6	63.7	0.5	11.0	9.3
Age 20-24	253	222	31	12.3	100.0	6.5	0.0	61.3	3.2	19.4	9.7
Not enrolled											
Age 14-29	504	417	87	17.3	100.0	11.5	0.0	63.2	1.1	21.8	2.3
Age 20-24	1,349	1,157	192	14.2	100.0	6.8	0.0	66.7	4.2	16.1	6.2
Occupation of head of household when respondent was age 14											
White collar	1,599	1,417	182	11.4	100.0	7.1	1.1	63.7	1.1	17.0	9.9
Blue collar	1,609	1,365	244	15.2	100.0	11.5	0.4	65.6	3.7	13.5	5.3
Service	169	140	29	17.2	100.0	27.6	0.0	55.2	0.0	13.8	3.4
Farm	370	337	33	8.9	100.0	6.1	3.0	69.7	0.0	21.2	0.0
Area of residence											
SMSA											
Central city	900	764	136	15.1	100.0	10.3	0.0	64.0	2.2	17.6	5.9
Not cental city	1,251	1,057	194	15.5	100.0	12.9	1.0	63.9	2.6	13.4	6.2
Not SMSA	1,483	1,321	162	10.9	100.0	6.8	0.6	66.0	1.9	16.0	8.6
Region of residence											
South	1,112	953	159	14.3	100.0	12.6	0.0	64.8	0.6	15.1	6.9
Nonsouth	2,526	2,193	333	13.2	100.0	9.0	0.9	64.6	3.0	15.6	6.9

(Table continued on next page.)

Table 1A.1 Continued

1968 Characteristics	Number interviewed 1968	Number interviewed 1973	Number leaving sample 1968-1973	Total attrition rate	Reason for noninterview (Percentage distributions) Total percent	Unable to locate	Institutionalized	Refused	Deceased	Dropped from sample[a]	Other
	WHITES										
Marital status											
Married, spouse present	1,154	1,015	139	12.0	100.0	10.8	0.0	64.0	3.6	18.0	3.6
Never married	2,345	2,015	330	14.1	100.0	10.3	0.9	66.7	0.9	13.3	7.9
Other	139	116	23	16.5	100.0	4.3	0.0	39.1	13.0	30.4	13.0
Dependents											
Child	802	709	93	11.6	100.0	11.8	0.0	61.3	6.5	18.3	2.2
No child	2,836	2,437	399	14.1	100.0	9.8	0.8	65.4	1.3	14.8	8.0
Lives with parents											
Yes	2,250	1,930	320	14.2	100.0	10.6	0.9	65.0	0.9	14.7	7.8
No	1,378	1,208	170	12.3	100.0	9.4	0.0	64.1	4.7	16.5	5.3
Number of years in 1968 residence											
Less than 1 year	381	329	52	13.6	100.0	11.5	0.0	48.1	7.7	23.1	9.6
1-4 years	590	500	90	15.3	100.0	12.2	0.0	51.1	1.1	20.0	5.6
5-9 years	370	308	62	16.8	100.0	8.1	1.6	56.5	4.8	22.6	6.5
10 or more years	568	496	72	12.7	100.0	15.3	0.0	65.3	0.0	13.9	5.6
All life	1,699	1,489	210	12.4	100.0	8.1	1.0	72.4	1.4	10.0	7.1
Years of schooling completed											
Enrolled											
Less than 13 years	1,325	1,164	161	12.2	100.0	13.7	1.9	62.7	1.2	11.8	8.7
13 or more years	460	408	52	11.3	100.0	9.6	0.0	65.4	0.0	13.5	11.5

(Table continued on next page.)

Table 1A.1 Continued

1968 Characteristics	Number interviewed 1968	Number interviewed 1973	Number leaving sample 1968-1973	Total attrition rate	Reason for noninterview (Percentage distributions)						
					Total percent	Unable to locate	Institutionalized	Refused	Deceased	Dropped from sample[a]	Other
					WHITES						
Not enrolled											
Less than 12 years	497	406	91	18.3	100.0	16.5	0.0	51.6	2.2	26.4	3.3
12 years	1,030	881	149	14.5	100.0	4.0	0.0	75.8	4.0	11.4	4.7
13 or more years	326	287	39	12.0	100.0	5.1	0.0	59.0	2.6	23.1	10.3
					BLACKS						
Enrolled											
Age 14-19	666	580	86	12.9	100.0	37.2	0.0	34.9	4.7	18.6	4.7
Age 20-24	50	45	5	10.0	100.0	c	c	c	c	c	c
Not enrolled											
Age 14-19	255	197	58	22.7	100.0	27.6	1.7	39.7	0.0	22.4	8.6
Age 20-24	488	408	80	16.4	100.0	12.5	0.0	45.0	7.5	28.8	6.3
Occupation of head of household when respondent was age 14											
White collar	332	296	36	10.8	100.0	25.0	0.0	36.1	2.8	36.1	0.0
Blue collar	658	549	109	16.6	100.0	23.9	0.9	45.9	3.7	18.3	7.3
Service	236	190	46	19.5	100.0	37.0	0.0	32.6	4.3	21.7	4.3
Farm	229	209	20	8.7	100.0	30.0	0.0	25.0	0.0	45.0	0.0
Area of residence											
SMSA											
Central city	689	560	129	18.7	100.0	16.3	0.0	47.3	5.4	24.0	7.0
Not central city	176	149	27	15.3	100.0	33.3	0.0	22.2	3.7	33.3	7.4
Not SMSA	593	520	73	12.3	100.0	39.7	1.4	32.9	4.1	17.8	4.1

(Table continued on next page.)

Table 1A.1 Continued

1968 Characteristics	Number interviewed 1968	Number interviewed 1973	Number leaving sample 1968-1973	Total attrition rate	Reason for noninterview (Percentage distributions)						
					Total percent	Unable to locate	Institutionalized	Refused	Deceased	Dropped from sample[a]	Other
	BLACKS										
Region of residence											
South	972	841	131	13.5	100.0	28.2	0.0	33.6	6.9	25.2	6.1
Nonsouth	486	388	98	20.2	100.0	22.4	1.0	48.0	2.0	20.4	6.1
Marital status											
Married, spouse present	310	263	47	15.2	100.0	23.4	0.0	48.9	6.4	17.0	4.3
Never married	1,060	898	162	15.3	100.0	29.0	0.6	37.7	3.7	23.5	5.6
Other	89	69	20	22.5	100.0	5.0	0.0	35.0	10.0	35.0	15.0
Dependents											
Child	451	383	68	15.1	100.0	25.0	0.0	41.2	7.4	17.6	8.8
No child	1,008	847	161	16.0	100.0	26.1	0.6	39.1	3.7	25.5	5.0
Lives with parents											
Yes	944	794	150	15.9	100.0	30.0	0.0	37.3	4.0	22.0	6.7
No	508	432	76	15.0	100.0	18.4	1.3	46.1	6.6	22.4	5.3
Number of years in 1968 residence											
Less than 1 year	115	95	20	17.4	100.0	15.0	5.0	35.0	5.0	25.0	15.0
1-4 years	151	117	34	22.5	100.0	29.4	0.0	44.1	5.9	20.6	0.0
5-9 years	113	96	17	15.0	100.0	c	c	c	c	c	c
10 or more years	211	175	36	17.1	100.0	19.4	0.0	27.8	2.8	47.2	2.8
All life	861	739	122	14.2	100.0	27.0	0.0	42.6	5.7	18.0	6.6

(Table continued on next page.)

Table 1A.1 . Continued

1968 Characteristics	Number interviewed 1968	Number interviewed 1973	Number leaving sample 1968-1973	Total attrition rate	Reason for noninterview (Percentage distributions)						
					Total percent	Unable to locate	Institutionalized	Refused	Deceased	Dropped from sample[a]	Other
	BLACKS										
Years of schooling completed											
Enrolled											
Less than 13 years	629	552	77	12.2	100.0	37.7	0.0	36.4	5.2	18.2	2.6
13 or more years	87	73	14	16.1	100.0	c	c	c	c	c	c
Not enrolled											
Less than 12 years	366	297	69	18.9	100.0	24.6	0.0	34.8	5.8	29.0	5.8
12 years	304	247	57	18.7	100.0	15.8	1.8	49.1	1.8	21.1	10.5
13 or more years	73	61	12	16.4	100.0	c	c	c	c	c	c

a Any respondent who was not interviewed for two consecutive surveys was dropped from the sample.
b Includes a small number of nonwhites other than blacks.
c Percentage distribution not shown where base represents less than 20 respondents.

CHAPTER 2

YOUNG WOMEN AND HIGHER EDUCATION

Steven H. Sandell and Rex C. Johnson

INTRODUCTION

The extent of women's postsecondary schooling is an important aspect of their struggle for equality in the United States. The accomplishments of adult women are limited by their past educational achievements. It is well known that higher educational attainment is associated with greater labor force participation, lower unemployment, and higher earnings. Thus, an examination of the education-related decisions of today's young women provides one basis for predicting their future position in American society.

The National Longitudinal Surveys show that while 78 percent of white and 76 percent of black young women in high school in 1968 expressed a desire to receive some higher education, only 52 percent of the white and 34 percent of the black young women actually entered college the year after their senior year in high school. It is of obvious importance in establishing educational policy to determine the importance of socioeconomic background and ability as determinants of college attendance. In the first place, low entrance rates for persons from low income families might suggest policies that would ease the financial burdens of college attendance for prospective students from these families. Second, examining the likelihood of college attendance of young women in various racial and ability groups is a necessary first step in evaluating the use of society's higher educational resources.

In this chapter, we examine two aspects of the college attendance decision of young women. First, we analyze the effects of race, mental ability, parental education, and family income on the desired, expected, and actual college attendance for young women who were enrolled in high school in 1968, 1969 or 1970. Second, for white women actually enrolled in college, we examine the relationship between attributes of the college (e.g., selectivity and student/faculty ratio) and the student's personal characteristics and family background.[1]

Economic theory is used to develop models for the individual's demand for college attendance and quality education at the college level. The developed framework demonstrates that if a woman chooses the quality and quantity of her education in order to maximize the present value of her future earnings stream, the education decision will depend on her mental ability, on the educational attainment of her parents, and on her family's financial resources. If women of higher ability can make better use of education (both number of years and quality of educational inputs), they are more likely to attend college and pay for higher quality educational inputs. In addition, college admission standards will limit the access of low ability students to high quality institutions. Parental education is positively associated with the taste for education of young women. If capital market imperfections make financing more expensive for women from low income families, these individuals are less likely on average to attend college and, if they do, are less likely to attend the more expensive, higher quality colleges.

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[1] Small sample size precluded a similar analysis for blacks.

The paper is organized in the following manner. The first section elaborates the economic model. In the following section, regression analysis is used to examine the young women's demands for postsecondary education. This section is followed by some conclusions.

AN ECONOMIC MODEL OF HIGHER EDUCATION ENROLLMENT

The Decision to Attend College

From an economic perspective, an individual will invest in a college education if the anticipated rate of return is higher than the costs of funds used in the investment.[2] In this framework, we can examine the effects of ability, differences in family financial circumstances and tuition subsidies on the demand for places in college.

If women with greater ability are better able to convert a unit of education into increased labor market productivity (hence, higher earnings), then the higher the person's native intelligence, the greater will be the rate of return to an incremental unit of education. Also, if scholarships are awarded on the basis of ability, persons with higher ability are able to reap a higher rate of return by obtaining the same education at a lower (private) direct cost.

Imperfections in the capital market exist partly because human capital cannot be used as collateral and because there is considerable uncertainty about the future earnings of any given individual. If a person is able to finance her education from her own or her family's savings, exercising this option will reduce the cost of education, since the interest foregone for an incremental unit of funds is lower than the price she would have to pay for funds from commercial sources. Hence, the probability of college attendance should be positively correlated with parental family income and negatively correlated with family size.[3]

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[2] The college investment decision is assumed to be decided on by both the young woman and her parents. Of course, college attendance contains present and future consumption benefits. We posit these benefits to be independent of the investment aspects and ignore them for the remainder of the present analysis.

Since for any given level of postcollege earnings, the rate of return to the investment in education is inversely related to the direct cost of college, tuition subsidies (from state or private sources) that lower the direct cost of a college education will have a positive effect on enrollment. In addition, such subsidies should have a greater positive inducement on the enrollment behavior of young women from poor families, since they are otherwise likely to finance their educations by borrowing.

The Quality of the College Attended

It is well known that institutions of higher learning differ both in the educational benefits they impart to their students and in the tuition they charge. Thus, young women and their families have to decide not only the number of years of education to obtain, but the quality of education they should acquire. The same economic framework used above to examine the decision to attend college can be extended to examine the choice of which college to attend. That is, to the extent that variations in the quality of education have different implications for persons with different characteristics, the simple economic model should enable us to predict the college choices of young women.

Since higher ability women are likely to receive greater benefits from educational inputs than lower ability women, we expect the former to desire to attend higher quality colleges. Hause (1972), for example, found that number of years of schooling and ability are complementary in affecting labor market earnings. In addition, to the extent that high ability persons can obtain scholarships enabling them to purchase quality educational inputs at reduced prices, ability and the acquisition of quality education will be correlated.

It is well known that colleges, particularly those of high quality, deny admissions to some women who would be eager to attend. In economic terms these colleges have excess demand for places in their freshman classes. Often the college rations the available places using admission requirements, selecting students on the basis of their ability or past achievements. Thus another reason for the expected correlation between college quality and ability becomes apparent.

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[3] This is offset somewhat since scholarships and government-guaranteed low interest loans are often awarded on the basis of need.

If, for the reasons mentioned earlier, the costs of financing higher education are higher for poor families than for high income families, the economic model predicts that prospective college students from low income families are less likely to attend the more expensive, higher quality colleges. This would be expected even in the absence of any differences in the future benefit streams. Finally, parental educational attainment may be expected to be positively associated with young women's acquisition of college quality both because it may reflect the parental influence on young women's acquired taste for higher education and because it may affect the amount of subsidy the daughter will receive out of any given family income.

EMPIRICAL ANALYSIS

The empirical analysis involves estimating demand functions for college attendance. First, the determinants of desired and expected college attendance are examined for the young women who were high school students at the time of the initial survey in 1968. Then the factors influencing the fulfillment of these desires and expectations are investigated using data on actual college attendance from the later (1969-1971) surveys. For women actually enrolled in college, we examine the relationship between attributes of the college (e.g., selectivity, student/faculty ratio) and the student's personal characteristics and family background.

The Demand for Higher Education

The basic regression model for the decision to enroll in college is:[4,5]

$$(1)\ \text{COLLEGE}_i = A + b\text{IQ}_i + c\text{EDUCATION}_i + d\text{INCOME}_i + f\text{SIBLINGS}_i + u_i$$

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[4] The implicit assumption is made that the supply of places in college is infinitely elastic. That is, persons who are willing to make the requisite expenditure will be admitted to some college. If the assumption is not valid, the interpretation of the regression coefficient for our measure of ability would be altered slightly, reflecting an admissions constraint.

[5] Other factors have been included in previous studies of educational aspirations and attainment. These include: high school curriculum, encouragement by parents and teachers, reading material in the home, high school quality, etc. Since many of these variables introduce behavioral aspects (i.e., students with greater ability receive more encouragement), they have been excluded from the simple economic model.

where:

COLLEGE_i	is a dummy variable with the value of one if the respondent actually attends (or desires or expects to attend) college and zero otherwise;
A	is a constant;
IQ_i	is a measure of the respondent's mental ability during high school;
EDUCATION_i	is the number of years of education of the respondent's father (or head of household);
INCOME_i	is the income of the respondent's (parental) family;[6]
SIBLINGS_i	is the number of siblings of the respondent;
u_i	represents the unexplained residual in the regression equation;

b, c, d, and f represent the least squares regressors associated with IQ_i, EDUCATION_i, INCOME_i and SIBLINGS_i, respectively.

The full regression results for all three dependent variables, as presented in Appendix Tables 2A.1 through 2A.4, are generally consistent with economic theory. Young women from families with greater financial resources are likely to receive larger parental subsidies toward their college educations, and face a lower effective rate of interest on their investment. Hence, we expect (and usually observe) a negative effect of number of siblings and a positive coefficient on average family income for white young women. However, for our sample of blacks we observe an unexpected sign on the regression coefficient of number of siblings. This might not refute the theory, however, for many empirical studies have suggested distinct attitudinal and behavioral differences between the races. It may be that a greater number of siblings in the black respondent's family is associated with a low standard of living and that this background heightens the individual's aspirations (hence, college orientation).

It is apparent that marriage is, for some women, an alternative to going to college. Hence, marital status the year after graduation from high school is not an appropriate variable in a model that is intended to explain college attendance. This becomes clear when our analysis is restricted to women who were single the year after high school (Appendix Table 2A.5). For this sample of whites, 57 percent enrolled in college the year after completing high school, compared with 52 percent of the sample not controlled for marital status. For blacks, the corresponding proportions are 38 and 34 percent. These are considered to be alternative sample specifications for the analysis. Because of underlying behavioral assumptions, the remainder of our discussion refers to analysis of samples unrestricted by marital status.

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[6] Since permanent income is a more appropriate measure of parental financial capacity than current income, our measure is the average reported family income (in 1967 dollars) for the available survey years.

As expected, for both groups we observe a significant positive effect of our measure of the respondent's mental ability. We interpret the positive coefficient for mother's and father's educational attainment as representing the transmittal of a positive taste for education from parents to children.

To examine the effect of the mothers' and fathers' educational attainment on the college attendance of their daughters, these measures were entered separately and jointly in the demand-for-college regressions. When mother's education is added to demand equations that already contain father's education and family income as explanatory variables, the regression coefficients of these variables are reduced in size for whites. In contrast, for blacks, the coefficient of father's education is reduced, but the family income coefficient is unaltered by the inclusion of the additional explanatory variable. The most appropriate model specification is ambiguous with respect to parental education. In the remainder of this paper, mother's education is used exclusively.

Table 2.1 displays probabilities of desiring, expecting, and actually attending college for white young women, computed from the regression analysis reported in Appendix Table 2A.1. These probabilities are useful in simplifying and illuminating the implications of the analysis. For example, among white women with two siblings, a mother who has completed 12 years of schooling and parental family income of $9,000, those with low ability (IQ = 90) are on average about half as likely to attend college as those with high ability (36 versus 73 percent). Making a similar comparison holding ability constant at IQ = 110 and examining the probability of attendance at various levels of average family income, we find that increasing income from $9,000 to $17,000 makes only a modest increase of 8 percentage points in the probability of actually attending college.

Another interesting comparison is the difference in the behavior of the income variable in affecting the desire for college, the expectation of attending, and actual attendance. For a given IQ = 110, the difference between the probabilities of desiring and expecting college is .07 when family income is $9,000 but this difference is reduced to .03 for respondents of the same ability coming from families

Table 2.1 Probability of Desired, Expected and Actual College Attendance for White Young Women, by Ability and Average Family Income[a],[b]

IQ \ Average family income	Family income = $9,000			Family income = $13,000			Family income = $17,000		
	Pr (Desire)	Pr (Expect)	Pr (Actual)	Pr (Desire)	Pr (Expect)	Pr (Actual)	Pr (Desire)	Pr (Expect)	Pr (Actual)
IQ = 90	.65	.59	.36	.68	.64	.40	.71	.68	.44
IQ = 110	.79	.72	.54	.82	.77	.58	.85	.82	.62
IQ = 130	.94	.86	.73	.97	.91	.77	.99	.96	.81

[a] Computations based on mother's education = 12 years, respondent's siblings = 2 and regression coefficients reported in Appendix Table 2A.1.

[b] Universe consists of women enrolled in high school in 1968.

with average income of $17,000. When we compare the difference in probability between expecting to attend college and actually attending, holding IQ constant at 110, this difference increases on average as income increases. For the respondent coming from a $9,000 income family, the difference in probabilities is .18. This same comparison for the respondent with an average family income if $17,000 is .20. While these differences are not large they are systematic, suggesting a linkage between family income, attitude formation (the desire for college), and college attendance.

The differences in probabilities of desiring and actually attending college for a given ability are highly stable as income varies. For a woman with an IQ of 90, the difference is about .28 regardless of the level of family income; for an IQ of 110, the difference is about .24 regardless of income; and for an IQ of 130, this differential falls to about .20. Individuals from low income families might simply be discouraged (perhaps mistakenly) at the prospects of financing college attendance. This may also represent a fundamental difference in attitude about the value of education.

Displayed in Table 2.2 are the corresponding mean probabilities for blacks. The usefulness of these tables is that we can assign the same characteristics to both races and then compare the racial differences in the effects of those characteristics on the dependent variables. These calculations indicate that black young women are more likely than their white counterparts to desire and expect college attendance for every income/ability group. The same is true for all but one case in the probability of actually attending. Also, the changes in the probabilities due to changes in income and ability differ from those observed in whites in several respects. For blacks, a 20 point increment in IQ is associated with a 12 percentage point increase in the probability of desiring college, and 15 percentage point increase in the probabilities of expecting and actually attending college. For whites, the same improvement in ability is associated with 14, 13, and 18 percent increases in the probability of desiring, expecting, and actually attending college, respectively. For blacks, irrespective of the level of ability, a $4,000 increase in family income increases the probability of attending college by 11 percentage points, whereas for whites, the increase is only 4 percentage points. On the other hand, a $4,000 increase in family income increases the probability of desiring college by 3 percent for both racial groups, regardless of level of ability.

In Table 2.3 we divide the probability of actually attending college by the probability of desiring to attend college for selected ability and income groups. These statistics can be interpreted as the proportion of those persons desiring college who actually attend. It can be seen clearly from this table that persons with higher family income and higher ability are more likely to realize their higher educational aspirations than are other young women.

Table 2.2 Probability of Desired, Expected and Actual College Attendance for Black Young Women, by Ability and Average Family Income[a,b]

IQ \ Average family income	Family income = $9,000			Family income = $13,000			Family income = $17,000		
	Pr (Desire)	Pr (Expect)	Pr (Actual)	Pr (Desire)	Pr (Expect)	Pr (Actual)	Pr (Desire)	Pr (Expect)	Pr (Actual)
IQ = 90	.74	.71	.43	.77	.74	.54	.80	.78	.66
IQ = 110	.86	.86	.58	.89	.89	.69	.92	.93	.81
IQ = 130	.98	1.00	.73	1.00	1.00	.84	1.00	1.00	.96

a Computations based on mother's education = 12 years, respondent's siblings = 2 and regression coefficients reported in Appendix Table 2A.2.

b Universe consists of women enrolled in high school in 1968.

c Calculated probabilities over 1.00 are reported as 1.00.

Table 2.3 Ratio of Actual to Desired College Attendance for Young Women, by Ability, Average Family Income, and Race[a,b]

IQ \ Average Family Income	Family income = $9,000	Family income = $13,000	Family income = $17,000
	WHITES		
IQ = 90	.55	.59	.62
IQ = 110	.68	.71	.73
IQ = 130	.78	.79	.82
	BLACKS		
IQ = 90	.58	.70	.83
IQ = 110	.67	.78	.88
IQ = 130	.74	.84	.96

a Computations based on Tables 2.1 and 2.2.
b Universe consists of women enrolled in high school in 1968.

Appendix Table 2A.6 presents separate regression analyses of the determinants of actual college attendance for white young women who were high school seniors in 1968, 1969 and 1970.[7] The estimates of the demand-for-education model appear to be different for the three years, particularly between 1968 and 1969, on the one hand, and 1970, on the other. Parental educational attainment (a taste factor) seems to be more important in 1968 while the variables representing the financial capacity of the family (family income and number of siblings) are highly significant in 1970, although they were statistically indistinguishable from zero in 1968. The respondent's mental ability seems to have a smaller effect on college attendance in 1970 than in the two previous years. We hypothesize that changing economic conditions over the period (higher inflation, unemployment and interest rates) resulted in greater importance of family financial resources in college attendance decisions by 1970. A variant of the demand model used to test this hypothesis is to interact a dummy variable indicating high school senior status in 1970 with the variables for family income and number of siblings and to include these interactions in a sample of all high school students in 1968. Significance tests[8] were used to reject the null hypothesis (the effects of the variables on 1970 seniors are indistinguishable from their effects on 1968 and 1969 seniors). Thus, we find support for the hypothesis that college attendance decisions are sensitive to short-run economic conditions.

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[7] Too few sample cases preclude separate year analyses for black women.

[8] The test for the difference in regression coefficients in the same estimating equation is:

$$t = \frac{C_A - C_B}{\sqrt{Var_{C_A} + Var_{C_B} - 2(COV_{C_A,C_B})}}$$

where

C_A and C_B	are the two coefficients,
Var_{C_A} and Var_{C_B}	are the variances of the respective coefficients,
and COV_{C_A,C_B}	is the covariance between the two coefficients.

Applying this test, for which the source is Theil (1971, p. 138), to the difference in the effect of family income on actual college attendance for 1970 seniors and 1968/1969 seniors yields a t-statistic of 2.136 which is significant at the 5 percent level (two-tail test). The same test for the difference in the effect of number of siblings yields a t-value of -2.42, significant at the 5 percent level.

The Choice of College

The empirical analysis in this section estimates the effect of ability, family income and father's education on the amount of "quality education" purchased by college students.[9]

The basic regression model is:

$$(2)\quad QUALITY_i = A + bIQ_i + cEDUCATION_i + dINCOME_i + fSIBLINGS_i + u_i$$

where:

$QUALITY_i$	is a measure of the quality of the college that individual i is attending;[10]
A	is a constant;
IQ_i	is a measure of the respondent's mental ability while in high school;
$EDUCATION_i$	is the number of years of education of the respondent's father (or head of household);
$INCOME_i$	is the income of the respondent's (parental) family in 1967 dollars;

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[9] Sample size limitations restrict this analysis to white young women.

[10] Several quality measures are used in the study. These include two cardinal measures of expenditures (expenditure per student, and faculty compensation per student), two measures of inputs thought to be related to quality education (percent of faculty holding Ph.D. degrees and student/faculty ratio) and an ordinal measure of the quality of the student body (selectivity of the college).

> "Selectivity [is] an index of institutional selectivity that has been developed as part of a survey of the college preferences of high-scoring students in the 1961 National Merit Scholarship program. Semifinalists and recipients of the Letter of Commendation from the 1961 Merit program had been asked to name the two colleges that they would most like to attend. An institution's selectivity was estimated computing the total number of those high-ability students who named that institution, divided by the total number of students admitted in Fall, 1961." Astin (1965), p. 25.

The college quality measures correspond to the last undergraduate college each women attended.

$SIBLINGS_i$ is the number of the respondent's siblings;

u_i represents the unexplained residual in the regression equation;

b, c, d and f are the least squares regressors associated with IQ_i, $EDUCATION_i$, $INCOME_i$ and $SIBLINGS_i$ respectively.

The effect of the variables differs depending upon the measure used to represent college quality. Nevertheless, we observe a consistent relationship between a young woman's ability, her family's income, and the college she attends.[11] Wealthy families consistently buy better college education for their daughters than do poor families; young women with high ability obtain better educations than their less intelligent peers. Mother's education is not a significant predictor of any of our measures of college quality, and in one case (expenditures per student) the number-of-siblings variable produces an estimate that is contrary to theoretical expectations.[12]

Using regression results that examine student expenditures for college education, the sensitivity of tuition spending with respect to family income and ability can be compared with the sensitivity of college quality purchased with respect to these same variables.[13] Other meaningful observations that can be made from these estimations include the amount students pay for college education for various levels of family income and ability, and how much the college is willing to subsidize them. For example, concentrating on the regressions for net tuition, an additional $1,000 of family income is associated with

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[11] Regression results are reported in Appendix Table 2A.8.

[12] It is useful to inquire whether the statistically weak results that have been obtained for the correlates of college quality are primarily explained by the small size of our sample. Accordingly, we have estimated the determinants of the quality of college attended for a larger sample that includes women who had attended college before the survey period. Since data on parental family income for these students were often unavailable, we used mother's education and father's education to represent socioeconomic status. These results, reported in Appendix Table 2A.9, imply that the statistical significance of some of the determinants of college quality (e.g., ability) would improve if the sample were larger.

[13] The regression results are reported in Appendix Table 2A.8.

$31 more in tuition expenditures by young women and a 10 point increase in IQ is associated with $62 more in tuition expenses. An additional year of mother's education is associated with $47 of additional tuition paid by young women.

The difference between expenditure per student and tuition paid per student is the subsidy received by each student in attendance. This subsidy comes predominantly from tax revenue for public colleges, while a portion of the subsidy for private college students is obtained from private donations. The regression results can be used to explore how this subsidy differs among students by sex, family income and ability. In 1967 dollars, the mean expenditure per student was $2,159 for men and $1,721 for women (Appendix Table 2A.10).[14] Since women paid an average net tuition of $653 compared to $694 for men, they received an average yearly subsidy of $1,068 compared to $1,465 for men.

These results shed some additional light on earnings differences by sex. Since men on average attend higher quality colleges than women, controlling only for the number of years of education in earnings functions will tend to overstate the difference in male-female earnings after "controlling" for education. Furthermore, if our results are applicable to older cohorts of men and women, the finding that the return to education for married women is less than that for married men may be due in part to differences in the quality of the education that the sexes obtained.

CONCLUSION

The decisions of young women to enter college, as well as their choice of college, seem to be consistent with the economic investment model. White women's desired, expected and actual college attendance are related positively to their parents' educational attainment, family income, and their own mental ability, and related negatively to the number of siblings. Similar, but statistically weaker findings are obtained for black women, with the exception of the effect of number of siblings. A significant and positive relationship exists between young women's mental ability, family income and various measures of the quality of the college attended by white women.

The importance of socioeconomic background as a determinant of the education decisions of young women is documented by this study. Not only is low family income associated with a lower probability of college attendance, it often implies attendance at lower quality institutions. A good deal of the lower actual college attendance of blacks than whites can be explained by the lower parental earnings among blacks. Thus it seems that investment in college education by both white and black women would be increased if financial constraints were lessened.

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[14] See Sandell (1977) for a more complete analysis of the acquisition of college quality by young men. Sample summary statistics for a comparable group of young men are reported in the Appendix.

The data have supported the hypothesis that the demand for college attendance among young women is influenced by aggregate economic conditions. Family income available for financing education is demonstrated to be significantly more important in the attendance decisions for high school seniors in 1970 than in 1968 and 1969. We posit that this finding is the result of increasing uncertainty in family finances over the period due to rising unemployment, inflation and interest rates.

Finally, the study documents the importance of parental educational attainment as a factor affecting the desired, expected and actual college attendance of young women. If young women whose parents are not college graduates do not receive the prerequisite encouragement and financial support from their parental families to seek higher education, their teachers, their peers, and, perhaps, the government have an important role to play.

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GLOSSARY

ADMISSIONS SELECTIVITY

An index of institutional selectivity that has been developed as part of a survey of the college preferences of high-scoring students in the 1961 National Merit Scholarship program. Semifinalists and recipients of the Letter of Commendation from the 1961 Merit program had been asked to name the two colleges that they would most like to attend. An institution's selectivity was estimated computing the total number of those high-ability students who named that institution, divided by the total number of students admitted in Fall, 1961.

COLLEGE

A dummy variable with the value of one if the respondent actually attends (or desires or expects to attend) college and zero otherwise.

EDUCATION

The highest year of "regular" school completed by the respondent's father (or head of household) - from 0 to 18 - as of the survey week in 1968. "Regular" schools include graded public, private, and parochial elementary and secondary schools; colleges; universities; and professional schools.

EXPENDITURES PER STUDENT

The expenditures made by the college per full-time students.

FACULTY COMPENSATION PER STUDENT

The compensation awarded the full-time faculty per full-time student at the college.

FACULTY/STUDENT RATIO

The ratio of full-time faculty per full-time student at the college.

FATHER'S EDUCATION

The highest year of "regular" school completed by the respondent's father - from 0 to 18 - as of the survey week in 1968. "Regular" schools include graded public, private, and parochial elementary and secondary schools; colleges; universities; and professional schools.

FULL-TIME STUDENT

Full-time students and one-half of the part-time students attending the college.

GROSS TUITION

The amount of full-time college tuition.

INCOME

The average reported family income (in 1967 dollars) for the available survey years.

IQ

A measure of the respondent's mental ability during high school (taken from the high school record).

MOTHER'S EDUCATION

The highest year of "regular" school completed by the respondent's mother - from 0 to 18 - as of the survey week in 1968. "Regular" schools include graded public, private, and parochial elementary and secondary schools; colleges; universities; and professional schools.

NET TUITION

The amount of full-time college tuition less the amount of financial aid.

PERCENT FACULTY HOLDING PH.D.'S

The percentage of the full-time faculty at the college which holds a Ph.D. degree or the equivalent.

QUALITY

A measure of the quality of the college attended by respondent. The quality measures include two cardinal measures of expenditures (expenditures per student and faculty compensation per student), two measures of inputs thought to be related to quality education (percent of faculty holding Ph.D. degrees and student/faculty ratio) and an ordinal measure of the quality of the student body (selectivity of college).

The college quality measures correspond to the last undergraduate college each woman attended.

SIBLINGS

The number of siblings of the respondent as of the survey week in 1968.

Table 2A.1 Determinants of Desired, Expected and Actual College Attendance for White Young Women in High School in 1968: Regression Results[a]

(t-values in parentheses)

Independent variables[b]	Dependent variables							
	Desire college	Expect college	Actual college attendance	Desire college	Expect college	Actual college attendance	Actual college attendance	Actual college attendance
Father's education				.018 (3.11)***	.026 (4.28)***	.039 (5.84)***	.028 (3.65)***	
Mother's education	.033 (4.44)***	.038 (4.77)***	.049 (5.59)***				.032 (3.24)***	
Average family income, 1967-1970 (in 1967 thousands of dollars)	.007 (2.10)**	.012 (3.68)***	.010 (2.63)***	.007 (2.14)**	.011 (3.20)***	.007 (1.77)**	.005 (1.20)	.018 (5.30)***
Number of siblings in 1968	-.012 (-1.44)	-.014 (-1.66)**	-.010 (-1.05)	-.013 (-1.55)	-.014 (-1.66)**	-.009 (-0.96)	-.007 (-0.76)	-.016 (-1.68)**
IQ x 10^{-2}	.719 (5.81)***	.690 (5.25)***	.942 (6.51)***	.782 (6.34)***	.743 (5.71)***	.992 (6.96)***	.914 (6.37)***	1.120 (7.74)***
Constant	-.431 (-3.05)	-.570 (-3.80)	-1.154 (-6.99)	-.319 (-2.31)	-.472 (-3.24)	-1.056 (-6.62)	-1.194 (-7.29)	-.849 (-5.32)
R^2 (adjusted)	.15	.17	.20	.13	.17	.20	.21	.16
F-ratio	27.7***	33.3***	38.4***	24.8***	32.0***	39.3***	34.0***	38.8***

Number of respondents = 612.

a Summary statistics are reported in Appendix Table 2A.5.

b All variables are defined in the Glossary.

** Significant at the 5 percent level.

*** Significant at the 1 percent level.

Table 2A.2 Determinants of Desired, Expected and Actual College Attendance for White Young Women in High School in 1968 and Never Married the Year Following High School Graduation: Regression Results[a]

(t-values in parentheses)

Independent variables[b]	Dependent variables							
	Desire college	Expect college	Actual college attendance	Desire college	Expect college	Actual college attendance	Actual college attendance	Actual college attendance
Father's education				.014 (2.39)***	.025 (3.95)***	.038 (5.30)***	.023 (2.88)***	
Mother's education	.036 (4.72)***	.041 (5.00)***	.055 (5.92)***				.041 (3.88)***	
Average family income, 1967-1970 (in 1967 thousands of dollars)	.006 (2.01)**	.011 (3.43)***	.005 (1.20)	.008 (2.50)***	.011 (3.20)***	.003 (0.78)	.001 (0.13)	.014 (3.83)***
Number of siblings in 1968	-.016 (-1.93)**	-.021 (-2.39)***	-.014 (-1.39)	-.017 (-2.04)**	-.021 (-2.35)***	-.013 (-1.30)	-.012 (-1.16)	-.019 (-1.88)**
IQ x 10^{-2}	.672 (5.32)***	.685 (5.08)***	.894 (5.80)***	.767 (6.08)***	.763 (5.71)***	.986 (6.47)***	.876 (5.72)***	1.109 (7.17)***
Constant	-.383 (-2.67)	-.555 (-3.62)	-1.064 (-6.07)	-.248 (-1.74)	-.451 (-2.99)	-.946 (-5.50)	-1.105 (-6.33)	-.739 (-4.30)
R^2 (adjusted)	.17	.20	.19	.14	.18	.18	.20	.14
F-ratio	27.6***	34.0***	32.4***	22.8***	31.2***	30.4***	27.9***	29.6***

Number of respondents = 537.

a Summary statistics are reported in Appendix Table 2A.5.

b All variables are defined in the Glossary.

** Significant at the 5 percent level.

*** Significant at the 1 percent level.

Table 2A.3 Determinants of Desired, Expected and Actual College Attendance for Black Young Women in High School in 1968: Regression Results[a]

(t-values in parentheses)

Independent variables[b]	Dependent variables							
	Desire college	Expect college	Actual college attendance	Desire college	Expect college	Actual college attendance	Actual college attendance	Actual college attendance
Father's education				.018 (1.43)	.030 (2.29)**	.044 (3.55)***	.039 (2.87)***	
Mother's education	.019 (1.02)	.021 (1.06)	.040 (2.15)**				.015 (0.75)	
Average family income, 1967-1970 (in 1967 thousands of dollars)	.008 (0.65)	.009 (0.68)	.029 (2.37)***	.003 (0.24)	-.001 (-0.04)	.017 (1.32)	.017 (1.30)	.035 (2.84)***
Number of siblings in 1968	.029 (2.00)	.021 (1:36)	.027 (1.85)	.027 (2.09)	.022 (1.65)	.025 (1.97)	.030 (2.10)	.011 (0.86)
IQ x 10^{-2}	.599 (2.24)**	.742 (2.60)***	.740 (2.72)***	.694 (2.73)***	.855 (3.19)***	.946 (3.77)***	.877 (3.27)***	.916 (3.48)***
Constant	-.157 (-0.60)	-.334 (-1.21)	-1.032 (-3.91)	-.172 (-0.70)	-.436 (-1.67)	-1.112 (-4.56)	-1.180 (-4.52)	-.754 (-3.23)
R^2 (adjusted)	.08	.09	.22	.09	.12	.27	.27	.20
F-ratio	3.55***	3.94***	9.37***	3.83***	5.10***	11.93***	9.62***	10.6***

Number of respondents = 118.

a Summary statistics are reported in Appendix Table 2A.5.

b All variables are defined in the Glossary.

** Significant at the 5 percent level.

*** Significant at the 1 percent level.

Table 2A.4 Determinants of Desired, Expected and Actual College Attendance for Black Young Women in High School in 1968 and Never Married the Year Following High School Graduation: Regression Results[a]

(t-values in parentheses)

Independent variables[b]	Dependent variables							
	Desire college	Expect college	Actual college attendance	Desire college	Expect college	Actual college attendance	Actual college attendance	Actual college attendance
Father's education				.013 (1.04)	.030 (2.18)**	.045 (3.40)***	.042 (2.90)***	
Mother's education	.019 (0.99)	.030 (1.43)	.035 (1.73)**				.008 (0.39)	
Average family income, 1967-1970 (in 1967 thousands of dollars)	.003 (0.21)	.002 (0.17)	.028 (2.09)**	.000 (0.00)	-.005 (-0.39)	.015 (1.10)	.015 (1.07)	.033 (2.52)***
Number of siblings in 1968	.027 (1.82)**	.023 (1.43)	.027 (1.72)**	.025 (1.79)**	.023 (1.55)	.030 (2.15)**	.032 (2.12)**	.013 (0.97)
IQ x 10^{-2}	.677 (2.44)***	.706 (2.36)***	.829 (2.83)***	.760 (2.87)***	.831 (2.96)***	.977 (3.64)***	.940 (3.29)***	.985 (3.49)***
Constant	-.187 (-0.70)	-.359 (-1.24)	-1.026 (-3.63)	-.156 (-0.62)	-.383 (-1.43)	-1.124 (-4.40)	-1.165 (-4.21)	-.780 (-3.16)
R^2 (adjusted)	.09	.09	.22	.09	.11	.28	.27	.20
F-ratio	3.56***	3.56***	8.26***	3.58***	4.32***	11.03***	8.78***	9.82***

Number of respondents = 105.

a Summary statistics are reported in Appendix Table 2A.5.

b All variables are defined in the Glossary.

** Significant at the 5 percent level.

*** Significant at the 1 percent level.

Table 2A.5 Means (Standard Deviations) for Determinants of Desired, Expected and Actual College Attendance

Variable description[a] / Sample description	Whites in high school in 1968	Whites in high school in 1968 (unmarried)[b]	Blacks in high school in 1968	Blacks in high school in 1968 (unmarried)[b]
Desire college attendance (dummy coded '1' if the respondent desires education beyond high school)	0.78 (0.42)	0.80 (0.40)	0.76 (0.43)	0.76 (0.43)
Expect college attendance (dummy coded '1' if the respondent expects education beyond high school)	0.72 (0.45)	0.75 (0.44)	0.69 (0.46)	0.70 (0.46)
Actual college attendance (dummy coded '1' if the respondent attends college the year following grade 12)	0.52 (0.50)	0.57 (0.50)	0.34 (0.48)	0.38 (0.49)
Father's education	11.68 (3.24)	11.87 (3.21)	8.57 (3.62)	8.73 (3.70)
Mother's education	11.76 (2.38)	11.84 (2.38)	9.74 (2.71)	9.96 (2.66)
Average family's income, 1967-1970 (in 1967 dollars)	11882.04 (5568.28)	12312.43 (5582.26)	6449.30 (3425.65)	6628.59 (3571.90)
IQ	107.30 (13.22)	107.71 (13.24)	89.02 (16.17)	89.41 (16.33)
Number of siblings in 1968	2.96 (1.97)	2.94 (1.96)	5.11 (3.18)	4.90 (3.15)
Number of respondents	612	537	118	105

[a] All variables are defined in the Glossary.

[b] Not married the year following high school graduation.

Table 2A.6 Determinants of Actual College Attendance for White High School Seniors in 1968, 1969 and 1970: Regression Results[a]

(t-values in parenthese)

Independent variables[b]	Year as high school senior			
	1968	1969	1970	1968-1970
Mother's education	.057 (3.73)***	.037 (2.42)***	.051 (3.46)***	.049 (5.63)***
Average family income, 1967-1970 (in 1967 thousands of dollars)	- .002 (- 0.28)	.014 (2.24)**	.017 (2.44)***	
Number of siblings in 1968	.021 (1.25)	- .001 (- 0.04)	- .032 (- 2.15)**	
IQ x 10^{-2}	1.039 (4.23)***	.949 (3.58)***	.791 (3.25)***	.950 (6.59)***
Average family income for 1970 seniors (in 1967 thousands of dollars)				.017 (3.46)***
Average family income for 1968 and 1969 seniors (in 1967 thousands of dollars)				.007 (1.87)**
Number of siblings for 1970 seniors				- .031 (- 2.43)***
Number of siblings for 1968 and 1969 seniors				.007 (0.59)
Constant	-1.283 (- 4.64)	-1.107 (- 3.76)	-1.037 (- 3.60)	-1.182 (- 7.17)
R^2 (adjusted)	.19	.20	.20	.20
F-ratio	12.2***	13.8***	14.2***	26.9***
Number of respondents	193	209	213	612

a Means (standard deviations) for determinants of actual college attendance for high school seniors samples are reported in Appendix Table 2A.7.

b All variables are defined in the Glossary.

** Significant at the 5 percent level.

*** Significant at the 1 percent level.

Table 2A.7 Means (Standard Deviations) for Determinants of Actual College Attendance for White High School Seniors[a]

Variable description[a] \ Sample description	1968 seniors	1969 seniors	1970 seniors	1968-1970 seniors
Actual college attendance (dummy coded '1' if the respondent actually attends college the year following grade 12)	0.55 (0.50)	0.51 (0.50)	0.51 (0.50)	0.52 (0.50)
Mother's education	11.74 (2.42)	11.79 (2.53)	11.70 (2.28)	11.76 (2.38)
Average family income, 1967-1970 (in 1967 dollars)	11,791.12 (5,931.15)	12,298.32 (5,985.59)	11,548.97 (4,857.88)	11,882.04 (5,568.28)
IQ	108.24 (13.97)	107.09 (12.82)	106.59 (13.04)	107.30 (13.22)
Number of siblings in 1968	2.83 (1.97)	3.06 (1.81)	2.98 (2.09)	2.96 (1.97)
Number of respondents	193	209	213	612

[a] All variables are defined in the Glossary.

Table 2A.8 Determinants of College Quality Purchased by White Young Women Reporting Any College Attendance between 1968 and 1970: Regression Results[a]

(t-values in parentheses)

Independent variables[b]	Dependent variables						
	Percent faculty holding Ph.D.'s	Faculty compensation per student	Expenditures per student	Admissions selectivity	Faculty/ student ratio	Gross tuition	Net tuition
Mother's education	-.460 (-0.80)	2.609 (0.34)	-29.18 (-0.81)	-.191 (-0.60)	.000 (0.48)	34.98 (1.50)	47.49 (1.97)**
Average family income, 1967-1970 (in 1967 thousands of dollars)	.422 (2.01)**	5.762 (2.05)**	28.32 (2.15)**	.250 (2.13)**	.001 (1.71)**	32.41 (3.79)***	30.72 (3.48)***
IQ	.237 (2.14)**	2.872 (1.94)**	12.26 (1.76)**	.122 (1.98)**	.0002 (1.09)	9.245 (2.05)**	6.205 (1.33)
Number of siblings in 1968	-.778 (-1.06)	7.725 (0.78)	93.98 (2.04)	.040 (0.10)	.000 (0.20)	-28.40 (-0.95)	-27.46 (-0.89)
Constant	18.51 (1.50)	144.9 (0.87)	56.30 (0.07)	34.05 (4.93)	.026 (1.39)	-1183 (-2.35)	-1034 (-1.99)
R^2 (adjusted)	.05	.07	.08	.05	.02	.18	.16
F-ratio	2.77**	3.47***	3.82***	2.70**	1.80	8.38***	7.20***

Number of respondents = 132.

a Summary statistics are reported in Appendix Table 2A.10.

b All variables are defined in the Glossary.

** Significant at the 5 percent level.

*** Significant at the 1 percent level.

Table 2A.9 Determinants of College Quality Purchased by White Young Women Reporting Any College Attendance between 1968 and 1970 or Before the Initial Survey: Regression Results[a]

(t-values in parentheses)

Independent variables[a]	Dependent variables						
	Percent faculty holding Ph.D.'s	Faculty compensation per student	Expenditures per student	Admissions selectivity	Faculty/ student ratio	Gross tuition	Net tuition
Mother's education	-.255 (-0.57)	-1.135 (-0.17)	-19.96 (-.557)	-.291 (-1.17)	-.000 (-0.17)	41.58 (2.25)**	45.58 (2.36)***
Father's education	1.121 (3.33)***	16.00 (3.22)***	61.64 (2.25)**	.884 (4.75)***	.002 (2.82)***	39.20 (2.83)***	42.82 (2.97)***
IQ	.176 (2.25)**	3.665 (3.17)***	14.93 (2.35)***	.168 (3.88)***	.0003 (2.24)**	9.764 (3.04)***	7.256 (2.16)**
Number of siblings in 1968	-.948 (-1.81)**	13.10 (1.69)	58.50 (1.37)	.068 (0.24)	.001 (0.95)	-7.346 (-0.34)	-5.601 (-0.25)
Constant	14.64 (1.61)	-21.30 (-0.16)	-563.4 (-0.76)	22.61 (4.50)	.009 (0.58)	-1482 (-3.96)	-1374 (-3.52)
R^2 (adjusted)	.075	.11	.045	.15	.06	.15	.14
F-ratio	6.06***	8.33***	3.95***	11.96***	5.06***	11.92***	10.88***

Number of respondents = 249.

a Summary statistics reported in Appendix Table 2A.10.

b All variables are defined in the Glossary.

** Significant at the 5 percent level.

*** Significant at the 1 percent level.

Table 2A.10 Means (Standard Deviations) for Determinants of College Quality Purchased by White Young Women[a]

Sample description / Variable description[b]	White young women reporting any college attendance between 1968 and 1971 (Table 2A.8)	White young women reporting any college attendance between 1968 and 1971 or before the initial survey (Table 2A.9)	White young men reporting any college attendance between 1966 and 1971 (reference-unweighted data)
Percent faculty holding Ph.D.'s	44.01 (14.45)	44.17 (13.74)	47.42 (15.43)
Faculty compensation per student	608.29 (195.96)	622.93 (206.28)	662.99 (253.15)
Expenditures per student	1,720.67 (923.12)	1,831.07 (1,098.22)	2,158.62 (1,382.96)
Admissions selectivity	49.31 (8.07)	49.83 (7.92)	51.71 (8.56)
Faculty/student ratio	.06 (.02)	.06 (.02)	NA NA
Gross tuition	716.28 (635.07)	665.56 (589.04)	776.54 (650.27)
Net tuition (gross tuition less any scholarships and fellowships received by the respondent)	653.10 (646.74)	587.31 (610.03)	694.11 (656.01)
Mother's education	12.69 (2.34)	12.75 (2.27)	12.31 (2.48)
Father's education	12.72 (3.08)	12.99 (2.98)	12.40 (3.30)
Average family income, 1967-1970 (in 1967 dollars) (1965-1970 for young men)	14,230.04 (6,260.79)	NA[c]	13,864.67 (5,709.41)
IQ	114.87 (11.91)	115.19 (11.16)	113.46 (12.63)
Number of siblings in 1968	2.38 (1.70)	2.19 (1.61)	2.34 (1.75)
Number of respondents	132	249	335

[a] All variables are defined in the Glossary.

[b] Sources of the Measure of College Used in the Study. The value of each dependent variable corresponds to the last undergraduate institution attended by the respondent. Gross tuition and net tuition are obtained from the National Longitudinal Surveys. The selectivity index was obtained from Alexander Astin, Who Goes Where to College. Chicago: Science Research Associates, 1965. Percent of full-time-equivalent faculty holding Ph.D.'s, expenditures per full-time-equivalent student, and full-time-equivalent students per full-time-equivalent faculty were obtained from American Junior Colleges, 8th. ed.; American Universities and Colleges, 10th ed.; American Council on Education, Washington, D.C., 1968, or State Approved Schools of Professional, Practical and Applied Nursing: National League for Nursing, New York, 1968. Faculty compensation per full-time-equivalent student was obtained from: "Report on the Economic Status of the Profession, 1971-1972," American Association of University Professors Bulletin, June 1972 (for Junior and Community Colleges); or "Report on the Economic Status of the Profession, 1968-1969," American Association of University Professors Bulletin, June 1972 (for colleges and universities other than junior and community colleges.)

[c] The family income variable is excluded in this sample to expand the number of observations to include college attendees before the initial survey.

CHAPTER 3

WORK AND MOTHERHOOD: THE DYNAMICS OF LABOR FORCE PARTICIPATION SURROUNDING THE FIRST BIRTH

Frank L. Mott and David Shapiro*

INTRODUCTION

One major manifestation of the changing position of women in American society has been the increasing propensity of women at all ages to participate actively in the labor force. Indeed, the overall labor force participation rate for women has increased from 37.8 percent to 46.4 percent during the 15-year period between 1960 and 1975.[1]

Traditionally, women tended to work primarily in the years immediately after leaving school. They then withdrew from the labor force either when they married or as they approached the birth of their first child. Some women would subsequently return to the work force when their last child reached school age; others would remain out of the labor force. In recent years, this traditional pattern has been changing: higher proportions of women are returning to the labor force, and increasing proportions of young women remain out of the labor force for only short periods of time in connection with the birth of their children. As a result, between 1960 and 1975 the labor force participation rate for women with children under the age of three more than doubled, from 15.3 to 34.4 percent.[2]

While female labor force participation levels at all life cycle points are higher than they have been in past decades, the birth of the first child still remains a major transition point for many women. Reflecting the birth event and the subsequent presence of an infant, substantial numbers of young women withdraw from the labor force. However, as our data will demonstrate, this phenomenon is apparently of a more temporary nature than has been true in the past. The average woman now stays in the labor force until three or four months before the birth, and in many instances returns soon after the birth (Table 3.1 and Figure 3.1).

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*The authors wish to thank Jean Haurin for her outstanding research assistance on this chapter.

[1] Hayghe (1974), and Hayghe (1975).

[2] Ibid.

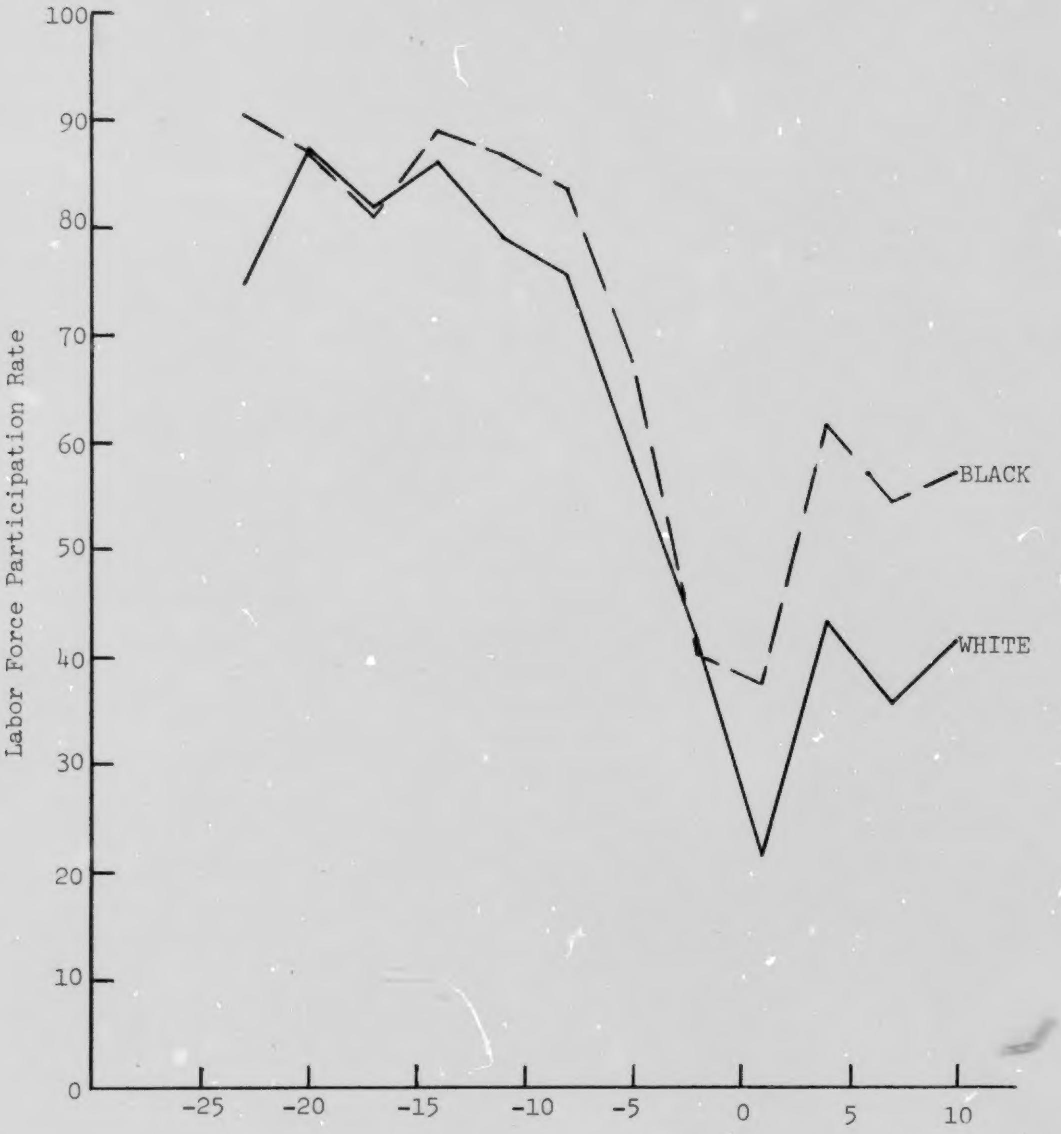
Table 3.1 Median Number of Months between Last Prebirth Job, Birth, and First Postbirth Job, by Educational Attainment and Race

Educational attainment	Median months left before birth	Median months returned after birth	Estimated average gap (in months) between jobs[a]
	WHITES		
Less than 12 years of school	7	11	18
12 years of school or more	2	11	13
	BLACKS		
Less than 12 years of school	6	9	15
12 years of school or more	4	4	8

NOTE: Prebirth estimates are based on cumulative frequency distribution of all women who were not enrolled at some point preceding the birth. Postbirth estimates are for all women (1) who had at least 12 months between first and second birth and (2) who were in the survey for at least 12 months after the first birth. All women who meet these criteria are considered, regardless of their labor force status.

[a] The numbers in this column represent sums of the numbers in the previous two columns. We use this measure as the best readily available approximation to the average gap between jobs. Because certain proportions of the women never work either before or after the birth and because there are varying school enrollment constraints there is no precise way to compute either an arithmetic mean or a theoretically correct median.

Figure 3.1 Labor Force Participation Rates Before and After First Birth, by Race



NOTE: Limited to respondents not enrolled in school at relevant survey date.

This chapter has several objectives, all of which are related to the overriding objective of clarifying, both descriptively and analytically, the patterns of labor force withdrawal and reentry associated with the first birth. First, patterns of labor force activity surrounding this birth are described in greater detail than has hitherto been available. Then, since a young woman's ideas about childbearing perhaps represent a somewhat longer time perspective, the patterns of her current labor force activity are examined within the context of her fertility ideals and expectations. That is, if the data suggest consistency between current work patterns and prospective fertility behavior, it is not unreasonable to hypothesize a certain common causality. Thus, if women with lower fertility expectations are also more likely to be working in the months immediately following their first birth, this evidenced consistency is suggestive of higher probabilities of working for these young women in the years ahead.

The concluding sections then focus on interpreting young women's labor force activity, both cross-sectionally and longitudinally, from a more straightforward economic perspective. The discussion will focus on suggesting ways in which varying disciplinary perspectives from both economics and sociology may be useful for interpreting divergent patterns of work activity between whites and blacks and between women from different socioeconomic origins.

The Data Set

Constraints imposed by the available data necessitate using different subsets of women for the two distinctly different analyses within this chapter. The section of the analysis focusing on labor force and fertility interaction uses responses to questions from the 1971 survey which asked women about the number of children they expect to have as well as the number of children they consider ideal. Thus, the reference point for that part of the analysis is the 1971 interview date. Also, since analogies are drawn between that research and the research of the remaining sections of the chapter, which focus on women before and after their first birth, the analysis of fertility ideals and expectations is limited to women with exactly one child.

In both the descriptive overview section and the section which provides the analysis of the labor force activity of these young women, virtually all the analyses focus on the 1,405 women in the sample who had their first birth at some point between the 1968 and 1973 interviews.[3,4] The data set for these analyses was constructed utilizing

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[3] For a more detailed statement about attrition within the cohort between 1968 and 1973, see Chapter 1.

[4] By focusing on the one-parity group, we are relating information for a group of women who for the most part can be assumed to be fecund.

a pooled cross-section technique. On any given interview date a woman's status in relationship to her first birth can be determined by matching the interview date with the date of birth of her first child. For example, if she was interviewed on March 1, 1969, and her first birth was on April 1, 1970, she was 13 months (-13 months) before her first birth at her 1969 interview. Similarly, her status in relationship to her first birth can be measured as of every interview date between 1968 and 1973. The particular woman in the above example might have been 25 months before her first birth at the 1968 interview, 13 months before the birth in 1969, 1 months before in 1970, 11 months after the first birth in 1971, and so forth.[5] On every one of the interview dates, we not only are aware of the woman's precise fertility status, but in addition we also have a considerable amount of information about her work status. From the above example, it should be apparent that many of the women in the sample could provide detailed labor force status information for several interview dates both before and after the first birth. Thus, the 1,405 women who had a first birth between 1968 and 1973 were able to provide an effective sample which included many more than just 1,405 points in time. Because of this, it was possible to develop a large and highly detailed work pattern for women not only at all stages of pregnancy but also for every month immediately following the birth of a first child.[6]

Finally, one brief section of this chapter, which compares young women's wages and occupational status on their first job after their first birth with their last job before the birth, utilizes the panel dimensions of the data set. In this section, job characteristics for the same women before and after the birth are matched. Thus, whereas

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Thus, expectations for this specific group may be assumed to be maximally associated with prospective reality, to the extent that expectations are indeed associated with subsequent fertility behavior.

[5] From the perspective of the postfirst birth analyses in this chapter, a woman is considered as having a postfirst birth status only until she has her second birth. Thus, if on a given interview date a woman already has had her second birth, that particular interview date was no longer considered within scope for this particular analysis for that woman. Of course, if earlier interview dates preceded the second birth, those points in time were included in this analysis. Also, the analysis was limited to women who were not enrolled in school on the relevant interview dates.

[6] A comparison of labor force participation curves for women having their first birth at different points during the five-year period indicates no apparent bias from using this technique.

the pooled data used for most of the research of this chapter compare different women at various points before and after the first birth, the comparison of wage and occupational status will focus on identical individuals at the two points in time.

LABOR FORCE BEHAVIOR SURROUNDING THE FIRST BIRTH: A DESCRIPTIVE OVERVIEW

The months surrounding the first birth represent the life cycle point when female labor force participation rates are at a minimum. As may be noted in Figure 3.1, labor force participation levels for both black and white women begin a decline during the early months of pregnancy; from rates approaching 80 percent at the beginning of pregnancy, they drop to 50 percent about three to four months before the birth and plummet to 20 percent for whites and 40 percent for blacks near the birth event.[7] It is of some interest to note that while the rates do indeed decline sharply in the months preceding the birth, at virtually all points there nonetheless are substantial numbers of women who choose to remain in the labor force.

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[7] The interested reader may note that labor force participation rates, employment rates and unemployment rates cited in this chapter are systematically several points higher than estimates for comparable population groups in the Decennial Census. This is true for both black and white respondents. While exactly comparable population groups to those used in this chapter cannot be found in any Census or Current Population Report, crude comparisons can be made by comparing NLS and 1970 Census (U.S. Bureau of the Census, 1970) labor force statistics for ever-married one-parity women 20 to 24 years of age who have children under the age of three. The NLS labor force participation rate for all such women was 42.9 percent compared with 34.5 percent for the Decennial Census. Of the 8.4 percentage point difference, 5.4 percent were in the employed part time, with a job but did not work, and unemployed categories. For black women, all of the difference in rates (an NLS labor force participation rate of 62.9 compared with a Census rate of 52.7) can be attributable to those three categories.

On the basis of this information, several rationales for the differences in the rate levels are suggested: (1) our analysis excludes a small number of women enrolled in school who have lower levels of work attachment; (2) all of the NLS interviews are with the respondent herself who may be more likely to recall marginal work activities than would another household member--who sometimes responds for the woman herself in both the Decennial Census and the Current Population Survey; and finally, (3) over the years the NLS respondents may have acquired a "sensitivity" to the standard labor force series of questions they are asked. Given the respondent's awareness of the major objective of the NLS interviews, she may make a greater effort to recall work activities of a marginal nature.

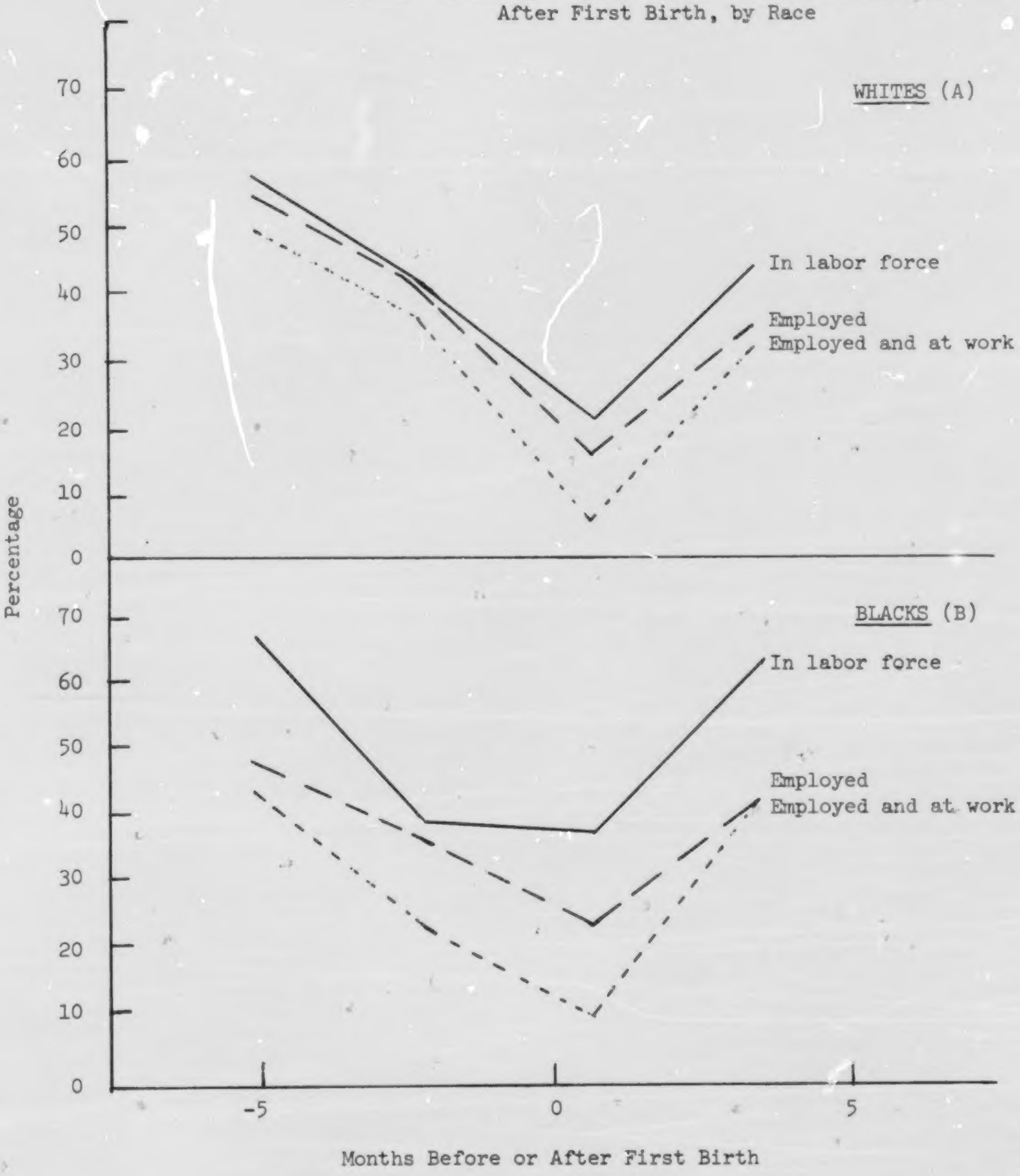
This fact should of course be mediated by the knowledge that in the months immediately around the birth event, actual work activity is significantly below labor force participation levels. As may be noted in Figures 3.2A and 3.2B, for both black and white women, the actual proportion of women at work in the month following the birth is below 10 percent, even though the percent employed (with a job and either at work or not at work) is around 20 percent. The labor force participation rates at that point in time are even higher--close to 40 percent for black woman and a little over 20 percent for white women.

Following the birth event, black and white labor force participation rates begin to rise. White labor force participation rates rise to approximately the 40 percent level whereas black rates increase to between 50 and 60 percent. However, as may be noted in Figure 3.3 a not inconsequential part of the difference between the black and white rates reflects higher levels of black unemployment; many more black women are seeking but unable to find work (this is true before as well as after the birth).

In addition to the fact that the average black woman is more likely to be working or looking for work, there are major racial differences in the extent of postbirth labor force attachment. As may be noted in Figure 3.4, whereas there are no significant differences in average hours worked between employed (and at work) black and white women before the birth, the average employed black woman is much more likely to be working full time (35 hours or more) after the birth. Whereas the percentage of white women working full time after the birth is between 50 and 55, nearly 70 percent of employed black women are working full time immediately after the birth, and the rate rises to about 80 percent within a year after the birth.

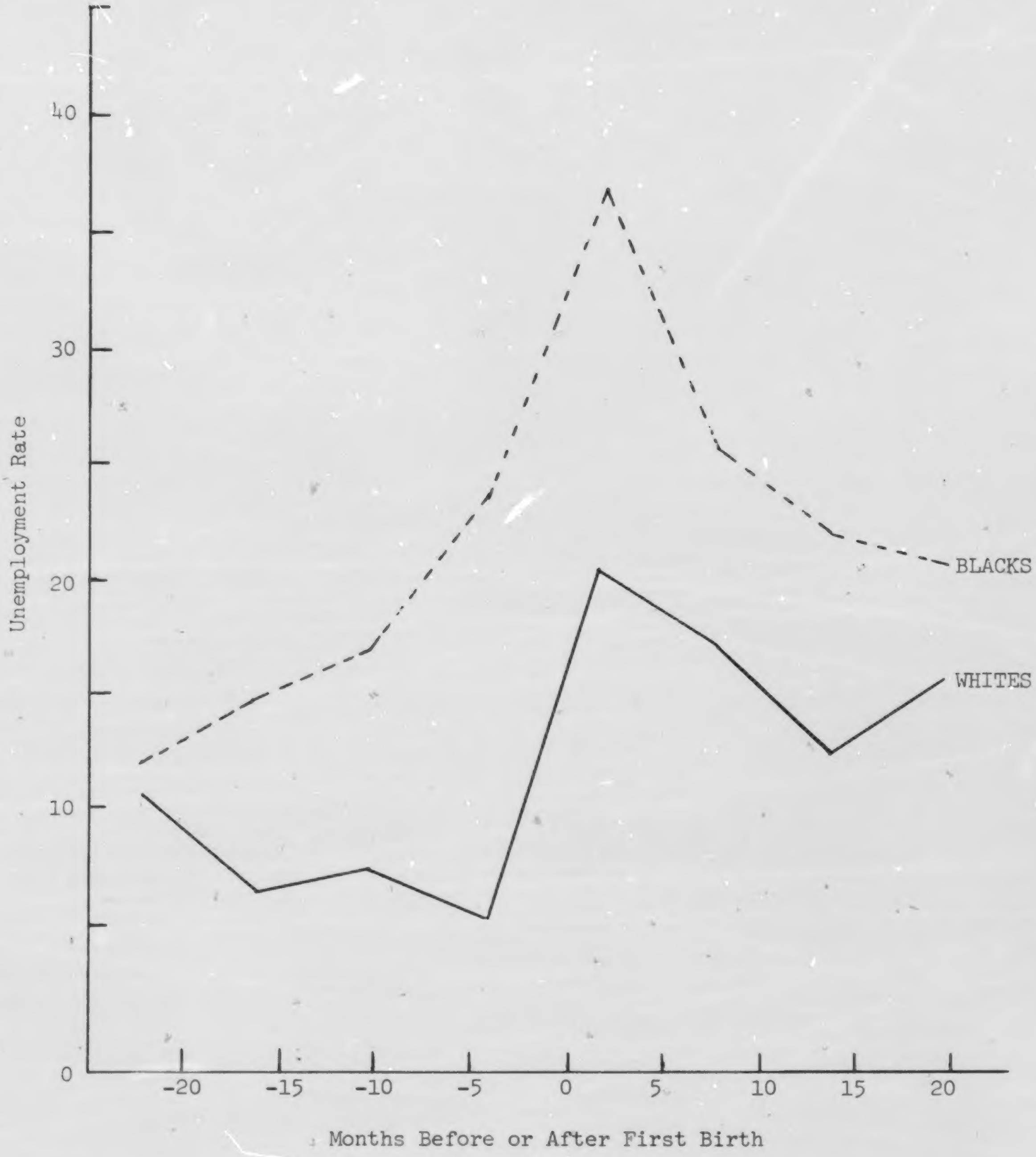
The overall racial contrast in Figure 3.1 disguises some major variations by educational levels. As may be noted in Figure 3.5, there are distinct differences in participation levels between the different race-education groups in the prebirth interval, as labor force rates are lowest for the black and white respondents with less than 12 years of school. After the birth, black women with 12 or more years of school return to the labor force in substantially greater proportions than do any of the other groups. At six months after the birth, over 60 percent of black women with at least a high school diploma are in the labor force compared with about 50 percent for black dropouts and about 40 percent for the two white education categories. Table 3.1 shows that the better-educated black women return to the labor force sooner than do the other race-education groups. The average black woman with 12 or more years of school spends about 8 months without a job due to the birth compared with between 13 and 18 months for the other race-education groups.

Figures 3.2 (A and B) Percentage in Labor Force, Percentage Employed, and Percentage Employed and at Work, Before and After First Birth, by Race



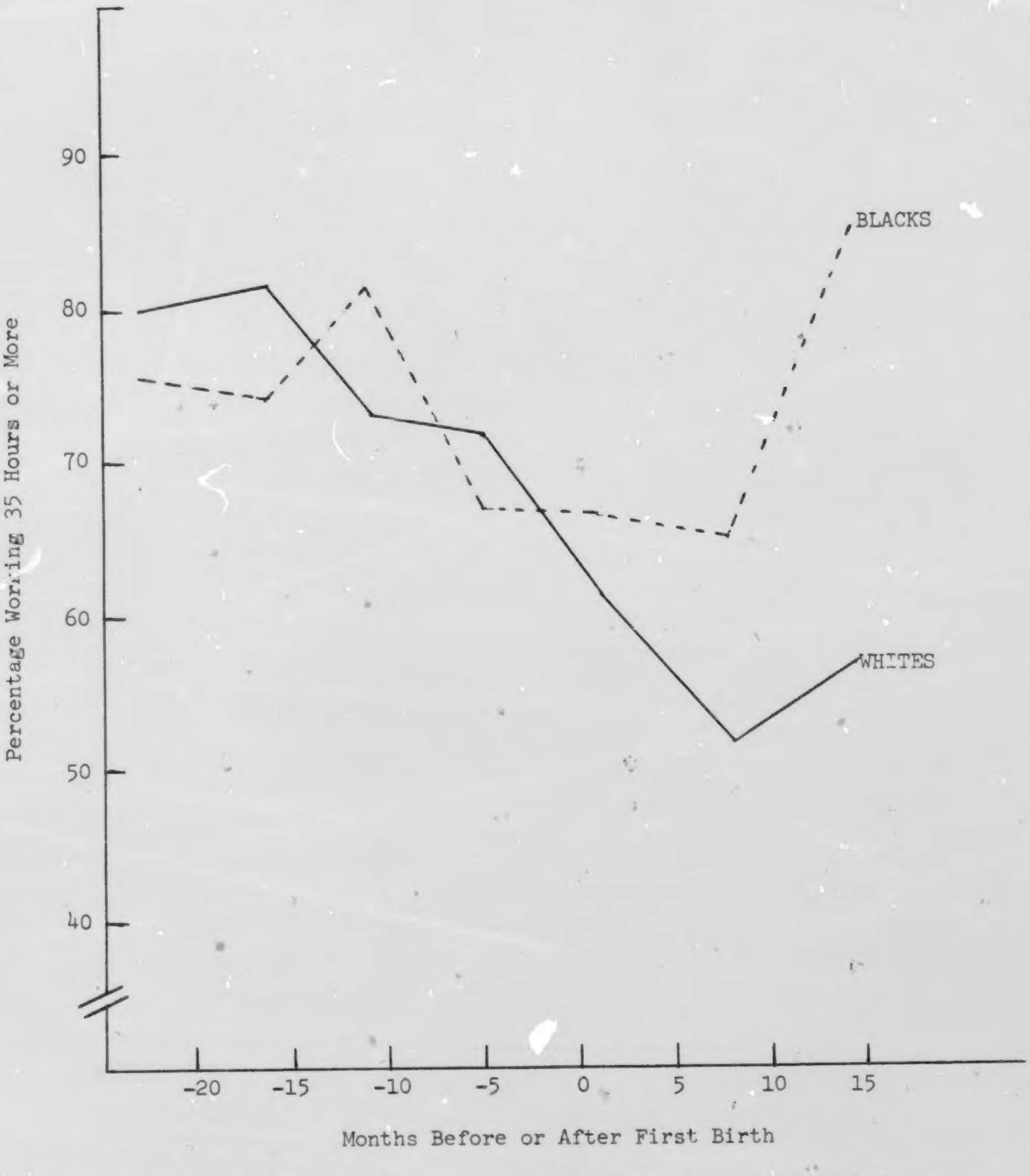
NOTE: Limited to respondents not enrolled in school at relevant survey date.

Figure 3.3 Unemployment Rates Before and After First Birth, by Race



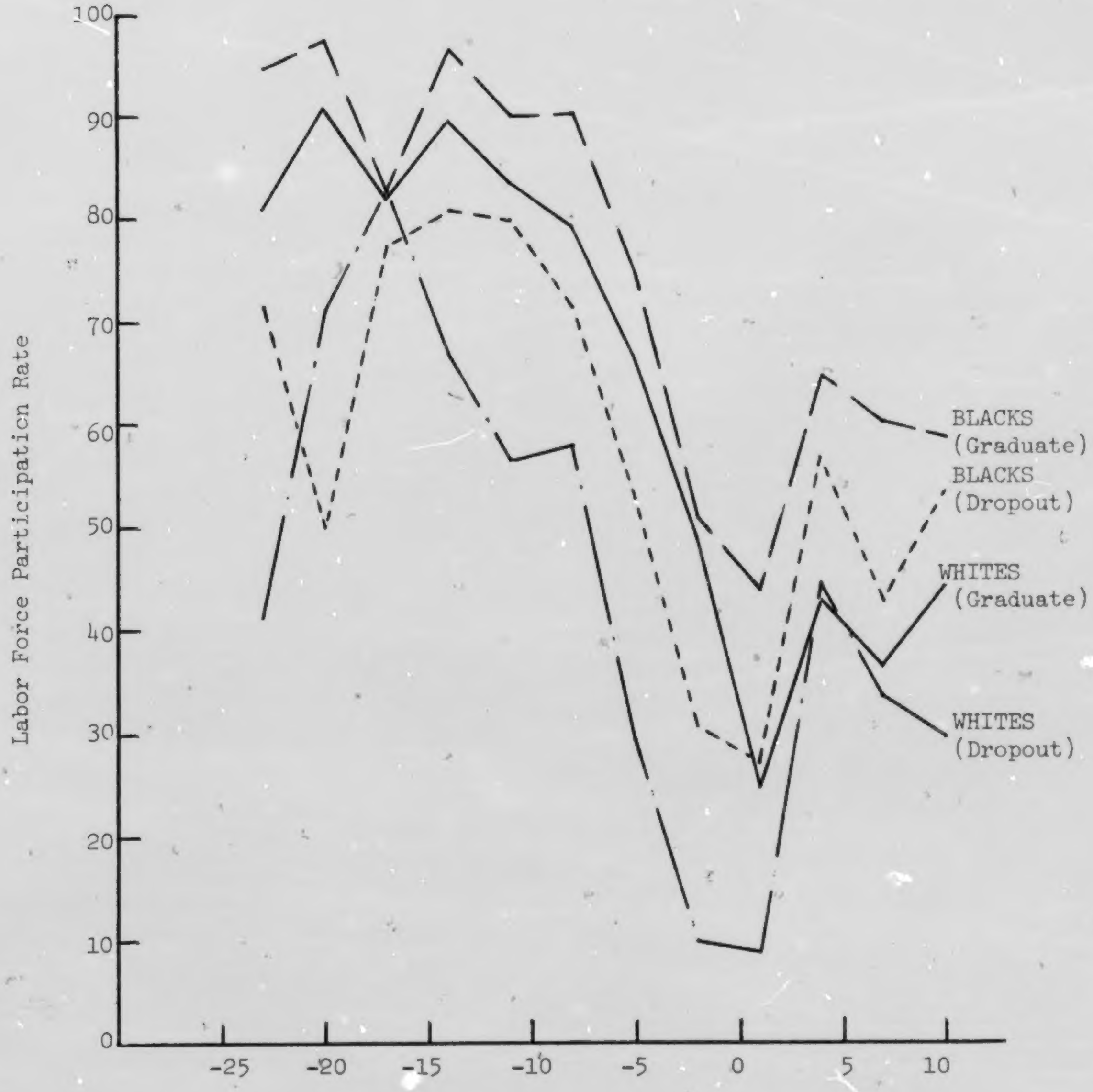
NOTE: Limited to respondents not enrolled in school at relevant survey date.

Figure 3.4 Percentage Working 35 Hours or More Per Week of Respondents Employed and At Work, Before and After First Birth, by Race



NOTE: Limited to respondents not enrolled in school at relevant survey date. Also, the denominator references the actual hours worked in the relevant survey week.

Figure 3.5 Labor Force Participation Rates Before and After First Birth, by Educational Attainment and Race



NOTE: Limited to respondents not enrolled in school at relevant survey date.

It is also of some interest to note (Figure 3.5) that the group with the second highest postbirth participation levels and propensity to return rapidly are the blacks with less than 12 years of school, suggesting generally higher levels of black labor force participation following the first birth. All of the above data suggest that there are distinct variations by race in labor force behavior following the first birth.

SOME PERSPECTIVES ON LABOR FORCE AND FERTILITY INTERACTION

Without belaboring the question of the direction of causality between fertility and labor force behavior, it seems reasonable to suggest that a young woman's decisions concerning fertility and work will be made within a common framework.[8] That is, a woman may be expected to make decisions concerning her future fertility behavior which are consistent with her prospective and current labor force behavior as well as with her other economic circumstances. Thus, one can hypothesize that, everything else being equal, greater fertility expectations will be associated with a lesser propensity to work.

The preceding section showed higher levels of labor force participation for blacks compared with whites. Table 3.2 provides fertility expectation data generally consistent with the labor force data, as young one-parity black women have distinctly lower fertility expectations than their white counterparts.[9]

Some of the factors which differentially affect female black and white labor force participation (and, presumably, fertility

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[8] It should be emphasized that causation in most of this analysis is not implied to be in only one direction. While we frequently seem to imply causation in much of what we write, we wish to reiterate that the interrelationships among the work, fertility and other socioeconomic variables--adding in the dimension of time--are far more complex than can be handled within space and time constraints of this chapter.

[9] Implicit in this discussion is the assumption that there are high correlations between fertility expectations and prospective fertility behavior. While obviously we cannot answer this question regarding the long run, we have some evidence that the association does indeed hold in the short run. Between 1971 and 1973, 51 percent of the one-parity white women who expected three or more children had an additional child compared with 36 percent for those who expected a total of two children and 14 percent for those expecting only one. Similar but less pronounced patterns were evidenced among the black one-parity women.

Table 3.2 Fertility Expectations, by Educational Attainment, Current Work Status, and Race: 1971[a]

Educational attainment and current work status	Number of respondents	Total number of children expected: Total percent	1	2	3 or more
		WHITES			
Total or average	560	100.0	12.1	48.7	39.2
Working	250	100.0	15.5	45.9	38.6
Not working	310	100.0	9.5	50.8	39.7
Less than 12 years of school	131	100.0	13.8	45.6	40.6
Working	50	100.0	20.1	38.7	41.1
Not working	81	100.0	9.9	49.8	40.3
12 years of school or more	429	100.0	11.6	49.5	38.8
Working	200	100.0	14.4	47.7	38.0
Not working	229	100.0	9.3	51.1	39.4
		BLACKS			
Total or average	242	100.0	29.0	40.4	30.6
Working	152	100.0	32.1	36.9	31.0
Not working	90	100.0	23.3	46.8	30.0
Less than 12 years of school	86	100.0	28.8	40.2	31.0
Working	41	100.0	28.1	34.9	36.9
Not working	45	100.0	29.7	46.3	24.1
12 years of school or more	156	100.0	29.3	40.5	30.5
Working	111	100.0	33.3	37.8	28.9
Not working	45	100.0	19.0	48.1	34.2

[a] The universe is restricted to one-parity respondents who were not enrolled in school in 1971.

behavior) will be noted within a standard economic labor-supply framework in the section to follow. However, there are certain aspects of the racial differential which can perhaps be interpreted more readily by incorporating several temporal dimensions. First, at all education levels, black young women come from poorer backgrounds than white young women. This is supported by the data in Table 3.3 which show that black young women at all educational levels have fathers who on average have less education than the fathers of white young women. Thus, to the extent that newly formed young families are able to gain an economic foothold through intergenerational transfer payments, young white families would probably on average be more favorably endowed.

It is also of some interest to note that the largest intergenerational disparities are for the young women with the highest education; less than 30 percent of white young women with some college have fathers with less than a high school degree compared with almost two-thirds for young black women. Thus, to the extent that young women obtain financial assistance from their parents' generation, we would expect the greatest relative handicap to exist among the better educated black women.

In addition to this intergenerational dimension, the average young black married woman at all educational levels is likely to have a husband who has less education than the husband of her white counterpart (Table 3.4). Since a husband's education is directly associated with his current and prospective earnings, the average young black woman would have a greater need to work (and concomitantly, reduce fertility behavior) in order to attain a given family income level. Also, to the extent that black young mothers are more likely to be either separated, divorced or never married, there is a greater incentive for the black woman to work. Indeed, as of the time of the first birth, 46 percent of the black women fell in the "no husband present" category compared with only 10 percent of the white women.

Further, as may be noted in Table 3.5, black husbands within a given educational category earned less than their white counterparts, which probably reflects discrimination in labor markets.[10] All of the above factors are consistent with the higher working propensities and lower fertility expectations of young black compared with young white mothers. Moreover as a result of the same factors, black families at all educational levels are less likely to have money in savings than their white counterparts and, at the higher educational levels, are more likely to have accumulated debts, perhaps reflecting in part the greater relative gap in intergenerational mobility for black compared with white daughters at the higher educational levels (Table 3.6).

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[10] See, for example, Becker (1971).

Table 3.3 Father's Educational Attainment, by Respondent's Educational Attainment and Race: 1968[a]

(Percentage distributions)

Respondent's educational attainment	Number of respondents	Father's educational attainment			
		Total percent	Less than 12 years	12 years	13 years or more
	WHITES				
Total or average	1,402	100.0	58.7	28.1	13.2
Less than 12 years	318	100.0	82.0	15.4	2.6
12 years	818	100.0	60.7	29.6	9.7
13 years or more	266	100.0	28.1	37.1	34.8
	BLACKS				
Total or average	371	100.0	83.5	14.3	2.2
Less than 12 years	145	100.0	95.2	4.3	0.6
12 years	176	100.0	80.6	16.5	2.9
13 years or more	50	100.0	63.5	32.4	4.1

[a] The universe is restricted to respondents who were not enrolled in school in 1968.

Table 3.4 Husband's Educational Attainment, by Respondent's Educational Attainment and Race: 1968

(Percentage distributions)

Respondent's educational attainment	Number of respondents	Husband's educational attainment			
		Total percent	Less than 12 years	12 years	13 years or more
	WHITES				
Total or average	1,074	100.0	25.7	46.9	27.4
Less than 12 years	329	100.0	54.1	40.4	5.6
12 years	539	100.0	17.8	58.5	23.7
13 years or more	206	100.0	4.0	27.2	68.8
	BLACKS				
Total or average	279	100.0	46.5	40.8	12.7
Less than 12 years	142	100.0	72.5	23.8	3.7
12 years	101	100.0	27.4	59.0	13.6
13 years or more	36	100.0	14.0	45.7	40.3

Table 3.5 Husband's Mean Earnings, by Husband's Educational Attainment and Race: 1968

Husband's educational attainment	All respondents		One-parity respondents	
	Number of respondents	Mean earnings	Number respondents	Mean earnings
	WHITES			
Total or average	1,041	$5,190	367	$5,480
Less than 12 years	291	4,379	106	4,539
12 years	473	5,551	169	5,727
13 years or more	277	5,339	92	5,961
	BLACKS			
Total or average	265	3,664	88	3,787
Less than 12 years	139	2,866	39	2,717
12 years	91	4,188	29	3,877
13 years or more	35	4,769	20	5,265

Table 3.6 Debt and Savings Status, by Family Status, Educational Attainment, and Race: 1971[a]

Educational attainment	Percent with debts				Percent with savings			
	All families		Married-spouse present		All families		Married-spouse present	
	Number of respondents	Percent	Number of respondents	Percent	Number of respondents	Percent	Number of respondents	Percent
	WHITES							
Total or average	612	55.1	537	55.1	598	72.6	524	75.2
Less than 12 years	145	61.8	120	64.5	147	49.8	122	53.3
12 years	348	56.7	304	56.0	335	75.6	292	77.8
13 years or more	119	43.1	113	43.3	116	91.5	110	92.0
	BLACKS							
Total or average	286	46.8	140	57.3	284	40.8	138	52.4
Less than 12 years	107	40.0	45	50.8	106	30.2	44	35.5
12 years	149	49.8	76	59.3	148	40.2	75	55.5
13 years or more	30	53.5	19	63.0	30	79.1	19	77.8

NOTE: Being in debt references a positive response to "Do you (or your husband) owe any (other) money to stores, banks, doctors or anyone else, excluding 30-day charge accounts?" Response to this item excludes car payments and mortgage debts.

Having savings references a positive response to "Do you (or your husband) have any money in savings or checking accounts, savings and loan companies, or credit unions?"

[a] The universe is restricted to respondents who were one parity and not enrolled in school in 1971.

That is, the higher debt level among the better educated blacks may be one manifestation of an upward mobility syndrome whereby they are striving--in spite of a less advantaged background--to reach the wellbeing level of their better-educated white counterparts.[11]

It may be noted in Table 3.7 that even though the average black woman expects fewer children, she has higher fertility ideals than her white counterpart. To the extent that fertility ideals are closer to representing what a woman (and her husband) would like to do, racial differences between expectations and ideals may represent the relatively greater constraining effect of lower current and anticipated income levels on expected fertility for blacks than for whites.

The preceding discussion has focused on interrelationships between fertility expectations and labor force attachment, with considerable emphasis on black/white differences. Much of the remaining analysis in this chapter, to which we now turn, will focus on explaining the levels of and variations in female labor supply in the periods immediately preceding and following the birth of the first child.

WORK AND MOTHERHOOD: AN ECONOMIC FRAMEWORK

Factors affecting the labor force participation of women have been subject to considerable analysis by economists and sociologists. Here we will utilize the labor-supply framework of economics in an effort to determine if those factors found to be important determinants of female labor force participation generally are also relevant to participation decisions for the periods just before and after the first birth.

The labor-supply framework of economics begins by positing that households will attempt to maximize utility. In the most simple formulation, a household will seek to maximize the utility derived from

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[11] See, for example, Goldstein and Goldscheider (1968) or Goldberg (1959) for studies which offer useful and perhaps analogous situations focusing on Jewish-Americans and Americans from rural backgrounds integrating into the larger society.

Several mobility and reference concepts are intertwined in our research. Upward mobility conscious individuals may restrict fertility for economic motives--to improve their own economic status to an acceptable level in an absolute sense, as well as to improve their economic status relative to relevant peers. From a psychological perspective, they may be striving to acquire characteristics more in tune with their perceived notions of what their peers view as proper behavior. In a loose sense, Merton (1968) defines these latter two relative concepts within a relative deprivation and anticipatory socialization framework.

Table 3.7 Relationship between Total Fertility Expectations and Fertility Ideals, by Race: 1971[a]

(Percentage distributions)

Relationship between expectations and ideals	Number of respondents	Total percent	One child	Two children	Three or more children
			WHITES		
Expectations	556	100.0	12.0	48.8	39.2
Ideals	556	100.0	3.4	59.9	36.7
Difference			+ 8.6	-11.1	+ 2.5
			BLACKS		
Expectations	241	100.0	28.8	40.6	30.9
Ideals	241	100.0	6.9	47.5	45.6
Difference			+21.9	- 6.9	-14.7

[a] The universe is restricted to one-parity respondents who were not enrolled in school in 1971.

its (joint) consumption of income and leisure. The household must give up leisure time in order to earn income in the labor market.

In addition to leisure, however, there are obviously other important alternative uses of an individual's time (besides work in the labor market), viz., work in the home, and schooling.[12] In order to earn income in the market, then, the household must give up time that would otherwise be spent in leisure and/or in work in the home. Conversely, if one member of the household works and earns a relatively high income in the market, that income may be used (in part) to "purchase" more time for nonmarket uses for other household members.

In examining factors affecting a young woman's decision concerning labor force participation, the preceding discussion suggests that other household income (more precisely, family income less respondent's earnings) will be an important consideration. That is, in households where other family income is relatively high, we expect a greater likelihood that the respondent will not be in the labor force, everything else being equal. In effect, such households will be able to "buy" more time for leisure and/or work in the home than less affluent households.[13]

If a woman chooses not to work in the labor market, she bears an opportunity cost--that is, time spent out of the labor market represents foregone earnings. The greater a young woman's earning power (potential wage rate) in the labor market, the greater will be the opportunity cost of nonparticipation. Thus we hypothesize that, other things equal, a young woman's potential wage rate will be related positively to the likelihood that she is in the labor force at any point in time, since greater earning power implies that nonparticipation in the labor force is more costly.[14]

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[12] In order to simplify the empirical analysis, our universe is restricted to young women who are not in school. Hence, we will consider schooling no further here.

[13] Evidence of an inverse relationship between other family income and wife's labor force participation, demonstrating a negative effect on wife's labor supply, is common in the literature on labor force participation. For example, see Bowen and Finegan (1969). Ideally, one would like to use a measure of "permanent" rather than current income; however, data limitations force us to use current income.

[14] More formally, we are hypothesizing that the substitution effect of the woman's (potential) wage will outweigh the income effect.

Apart from differences in other family income and (own) potential earning power, young women also may have differing tastes--different preferences among income, leisure, work in the home, and work in the market. While we cannot measure these tastes directly, we do make use of information from the NLS concerning the respondent's educational attainment and expectations of future labor force attachment. These variables should serve as proxy measures for tastes. Educational attainment is correlated with the respondent's potential wage rate, and probably with other family income. However, since these variables are already controlled for in our model, we view the independent effect of educational attainment on labor force participation as reflecting a taste effect. Previous empirical work has suggested that greater educational attainment is positively related to tastes for market work, everything else being equal, since educational attainment is positively related to labor force participation.[15] At the same time, however, some recent evidence has been presented in the literature suggesting that better-educated mothers tend to spend more time at home caring for young children.[16] Thus, we hypothesize that prior to the first birth educational attainment will be positively related to labor force participation; while after the birth, we have no strong hypothesis concerning the independent effects of education on participation.

The NLS data provide responses to questions concerning what respondents would like to be doing when they reach age 35. We make use of these responses as an additional taste factor--i.e., those young women who indicated that they would like to be working in the labor market at age 35 are expected to have greater labor force participation rates.[17]

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[15] For example, see Bowen and Finegan (1969). Such a positive relationship could also result from a positive partial correlation (i.e., controlling for wage) between education and the nonpecuniary aspects of work.

[16] See Hill and Stafford (1974) and Leibowitz (1974). This may reflect not simply a "taste" phenomenon, but rather an independent effect of education on productivity in the home (and particularly on child care).

[17] In addition to the income, wgae, and taste variables, we have included several other variables in the analysis. These variables were included primarily as controls designed to prevent biased estimation of our hypothesized relationships, and consist of:

a) A self-evaluative measure of the respondent's health status. We assume that respondents whose health limits the amount or kind of work they can do in the labor market will be less likely to be in the labor force.

The labor supply framework of economics, then, leads us to focus on the effects of other family income, respondent's earning power in the labor market, and tastes as determinants of labor force participation. Race per se does not explicitly enter into this framework. As noted previously, however, there are distinct racial differences in fertility expectations that are consistent with higher labor force attachment among blacks. It was suggested that these differences might be due in part to lower current and anticipated income levels for blacks.[18]

In addition, we noted earlier that the young black women generally come from lower income backgrounds than their white counterparts. To the extent that this difference in family backgrounds is reflected in smaller intergenerational wealth transfers among blacks, one should observe higher labor force participation rates, other things equal. Similarly, the fact that black one-parity women are less likely to be married with spouse present than their white counterparts also suggests that the black women will have higher participation rates. Overall, then, we believe that differences by race in terms of the factors just mentioned, when coupled with differences in the values of the other variables that are explicitly included in the analysis, result in labor force participation rates that are higher for blacks than for whites.

Further, it was noted that the black-white differences in upward mobility and debt tend to be greatest among those at the highest education level. Thus, while upward mobility is generally greater

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b) A dichotomous variable indicating whether or not there was another adult (age 21 or over and exclusive of the respondent's husband) in the household. This variable was included only for the periods after the birth. Since another adult in the household provides a relatively good substitute for the mother's time at home, we hypothesize that, other things equal, respondents from such households will have higher labor force participation rates.

c) A categorical variable differentiating women who were married with spouse present from other women (widowed, divorced, separated, married with spouse absent, and never married). Clearly, even after controlling for the other variables in the model, it is likely that marital status will influence labor force participation, since women of different marital statuses have quite different long-term prospects. We hypothesize that, other things equal, married women living with their husbands will have lower participation rates than other women.

[18] Note, however, that the discussion in this section of the potential wage rate as a measure of the opportunity cost of nonmarket time suggests that to the extent that black women have lower wage rates than white women, children will be less expensive (in terms of foregone income) for them.

for blacks than for whites, the interracial difference in mobility is greatest among the most highly educated. We hypothesize, therefore, that blacks who are relatively well off (college educated, relatively high income level) are most likely to be striving to move up the socioeconomic ladder. In such a situation, fertility limitation would be a plausible means of raising the household's level of material well-being, and female labor force participation in affected households should be high. Empirically, then, this mobility hypothesis translates into expectations of high levels of female labor force participation among blacks with more education and with relatively high "other" family income, everything else being equal.

These hypotheses will be tested by means of multiple classification analysis (MCA), a version of multiple regression analysis with the explanatory variables expressed in categorical form. The MCA technique permits one to calculate the mean value of the dependent variable for each category of a particular explanatory variable, "adjusted" for the effects of all other variables in the model. Differences in these adjusted values among the several categories of a given variable may be interpreted as indicating the "pure" effect of that variable upon the dependent measure. To provide a specific example, the MCA technique calculates for each education category of women what proportion of the category would be in the labor force if those women were "average" in terms of all the other variables entering into the analysis. In the analysis below, we will examine our hypotheses by focusing on these "adjusted" proportions.

Some Multivariate Results

We focus here on the major hypotheses set forth in the preceding section. The key variables are other family income, respondent's potential wage rate, and the proxy measures for tastes--educational attainment and plans for age 35. Results of the MCA estimates for each of the five intervals surrounding the first birth are presented in Appendix Tables 3A.1 to 3A.5.

The dependent variable in these estimates is labor force participation in the following periods before and after the first birth:

(1) Labor force participation 13 to 18 months before the birth (1 = in labor force, 0 = not in labor force),

(2) Labor force participation 6 to 12 months before the birth,

(3) Labor force participation 0 to 5 months before the birth,

(4) Labor force participation 1 to 5 months after the birth,

and (5) Labor force participation 6 to 12 months after the birth.

Other family income was hypothesized earlier to be inversely related to the likelihood that a young white woman would be in the labor force at any point in time. It is apparent from Figure 3.6A that the data do provide some support for this hypothesis. More precisely, while there are no consistent differences in participation levels between the low- and middle-income groups, the high-income group does have consistently lower participation, other things equal. The difference in (adjusted) participation levels narrows as the birth is approached and then widens following the birth, as participation among low- and middle-income families begins to increase while participation in high-income households remains quite low. It thus appears that among whites, high-income households do "buy" more time for work in the home than do less affluent households, particularly in the early stages of pregnancy and after the birth. Among blacks, there is no evidence of an inverse relationship between participation and other family income--in fact, more than five months after the birth the highest (adjusted) labor force rates are those of the high-income group (Figure 3.6B). In comparing white and black rates by income group, it is apparent that after the birth blacks have generally higher participation rates. The differential by race is widest among the high-income group. These results are consistent with the mobility hypothesis proposed above.

The respondent's potential wage rate was hypothesized to be positively related to her labor force participation. The data provide considerable support for this hypothesis: the potential wage rate is highly significant in almost all the intervals for whites, and the pattern is generally in the expected direction for blacks as, although the variable is not so highly significant as for whites. Figures 3.7A and 3.7B show the adjusted labor force rates by potential wage rate. Among whites, moving from the low-wage group up to the high-wage group is associated with increased labor force participation in each of the five intervals. It appears that the high-wage group is much more likely to remain in the labor force until just before the birth, and this group is also more likely to return to the labor force after the birth.[19] Among blacks, the pattern of higher participation associated with a higher potential wage is generally present. Thus, even though we are considering an important transitional period in the lives of these young women, it appears that their labor force behavior both before and after the first birth is quite responsive to variations in the opportunity cost of nonmarket time.

Educational attainment was hypothesized to be positively related to labor force participation prior to the birth, as a reflection of stronger tastes for market work. We had no strong hypothesis

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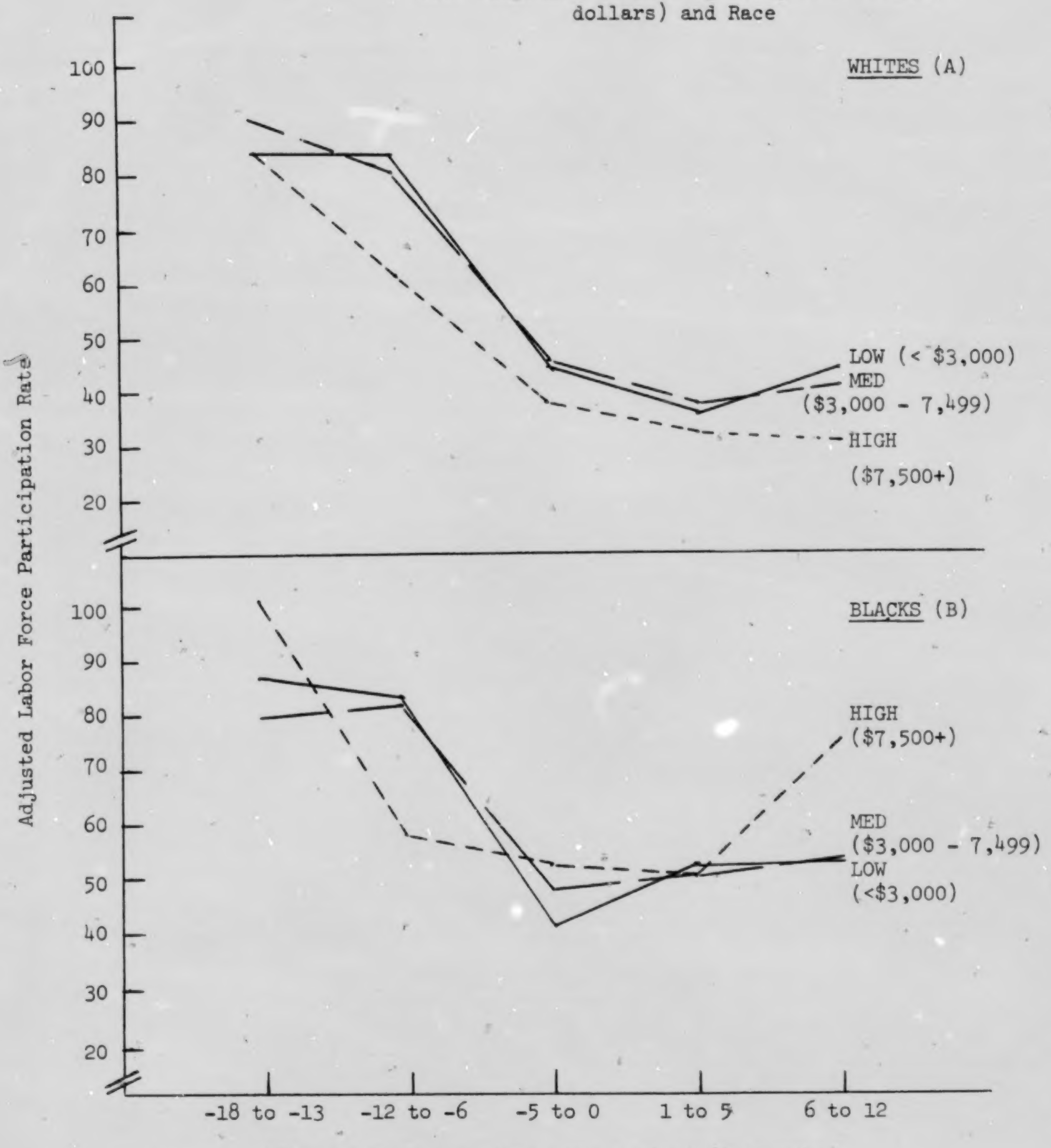
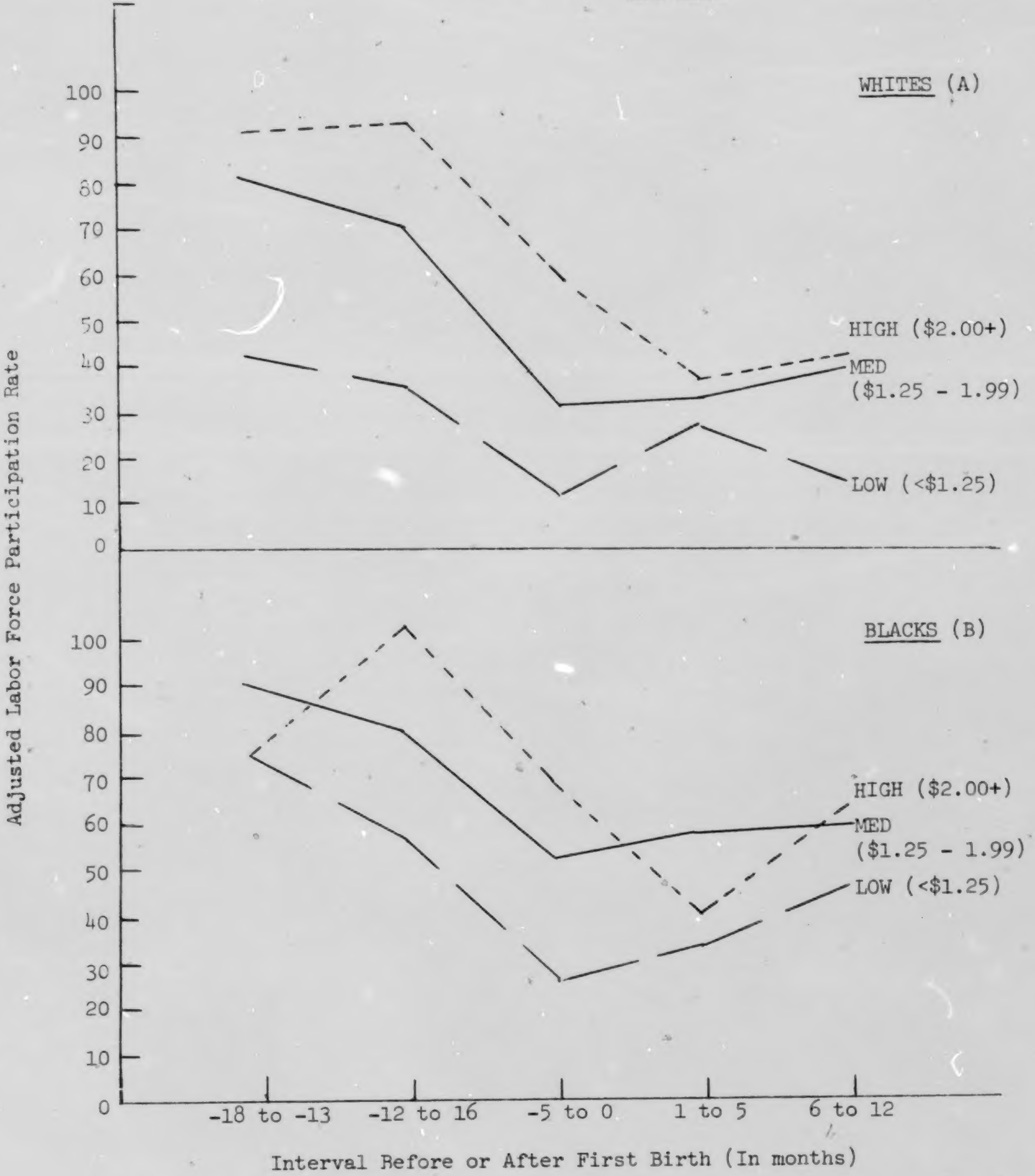
[19] It should be noted that there are some women who do not drop out of the labor force except for very brief periods.

Figure 3.6 (A and B) Adjusted Labor Force Participation Rates, by Income Less Respondent's Earnings (Adjusted to 1967 dollars) and Race



SOURCE: Appendix Tables 3A.1 to 3A.5.

Figures 3.7 (A and B) Adjusted Labor Force Participation Rates, by Potential Hourly Wage (Adjusted to 1967 dollars) and Race



SOURCE: Appendix Tables 3A.1 to 3A.5.

concerning the independent effect of education on participation following the birth. The mobility hypothesis suggests a stronger positive relationship among blacks. The unadjusted relationship between education and participation is quite strong: in every interval, for both whites and blacks, greater education is associated with higher participation. As suggested above, however, much of this association may reflect the positive correlation between education and the potential wage. Indeed, after controlling for the effects of the potential wage (and other factors in the model), the overwhelmingly positive relationship between educational attainment and labor force participation is no longer present. The adjusted labor force rates by educational attainment for whites and blacks are shown in Figures 3.8A and 3.8B, respectively.

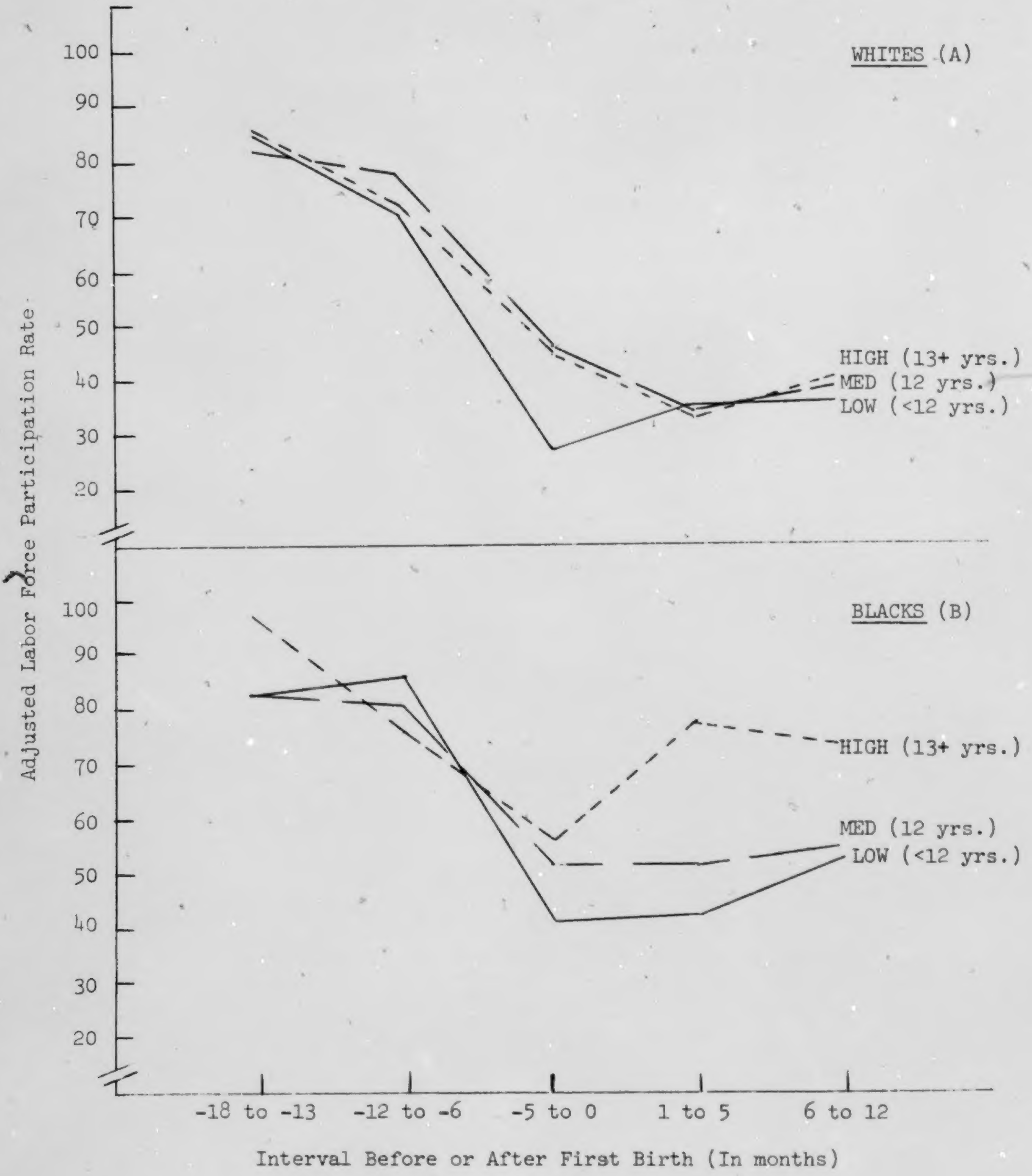
Among whites, there is some support for the hypothesis that education and participation will be positively related prior to the birth: the low-education group has distinctly lower (adjusted) participation during pregnancy--particularly so in the interval immediately preceding the birth. In the interval immediately following the birth, however, participation rates (both adjusted and unadjusted) are nearly identical for all three educational attainment groups. Comparison of these two intervals thus indicates that, other things equal, the presence of an infant has a greater depressing effect on the labor force participation of the better-educated young white mothers.

Contrary to the pattern among whites, schooling is not consistently related to participation of blacks prior to the birth, but there is a generally positive relationship between schooling and (adjusted) participation after the birth among blacks. In comparing whites and blacks at comparable schooling levels, it is apparent that blacks have higher labor force rates. In addition, the racial difference is widest among the college-educated. This result is quite consistent with our earlier discussion focusing on the high upward mobility and debt accumulation among blacks with college education.

Preferences for working in the labor market at age 35 were included in the analysis as an additional taste factor. Prior to the birth, there was little variation in labor force participation by plans to work at age 35, either for whites or for blacks. After the birth, future plans do appear to be somewhat related to participation, but only for the interval immediately following the birth. It is interesting to note that support for our hypothesis that future plans, as an indicator of tastes for market work, would be independently related to labor force participation is present only for the interval in which the mother's time input into child care is presumably most intensive.

To summarize, then, we began this section by drawing upon the analytical framework of economics and hypothesizing that, other things

Figures 3.8 (A and B) Adjusted Labor Force Participation Rates, by Educational Attainment and Race



SOURCE: Appendix Tables 3A.1 to 3A.5.

equal, labor force participation would be inversely related to other family income and positively related to the respondent's earning power in the labor market and (to some extent) to her educational attainment. We also focused on racial differences in family background and in some of the variables included directly in the analysis. This framework helps explain why blacks have generally higher participation rates than whites; and it led us to hypothesize that the relatively greater upward mobility of well-educated, higher-income blacks would strengthen the expectation of a positive relationship between education and participation and weaken the expected inverse relationship between other family income and participation.

In general, the data provided support for most of these hypotheses. More precisely, black participation rates are generally greater than those of whites, with the differences greatest following the birth of the first child. For both blacks and whites, the single most powerful variable influencing labor force participation both before and after the birth is the potential wage rate. Other family income is somewhat inversely related to participation among whites, both during pregnancy and after the birth; among blacks there is no clear relationship prior to the birth and more than five months after the birth the highest (adjusted) participation is by the high-income group. There is some evidence of a positive relationship between educational attainment and prebirth participation, other things equal, for whites, but not for blacks; however, after the birth there is a strong positive relationship among blacks but no pronounced pattern for whites. Thus, while the data do provide support for the implications of conventional labor supply analysis, we also note the presence of interracial differences in the effects of schooling and other family income (particularly after the birth) that are quite consistent with our discussion of mobility effects.

THE EFFECT OF EMPLOYMENT DISCONTINUITY ON WAGES AND OCCUPATIONAL STATUS

The discussion in this chapter has focused primarily on the differential propensities of women to maintain an attachment to the labor force in the periods before and after the birth of their first child. We have found distinct differences in participation levels by race, by earning power in the labor market, and, to a lesser degree, by educational attainment and household income level. We have interpreted the racial differentials as being at least in part due to differences in levels of other family income, marital status, and savings and debt accumulation, reflecting at least in part racial differentials in intergenerational mobility patterns.

Whereas the earlier sections contrast those women who are in the labor force with those who are not, this analysis will focus only on women who return to the labor force after the birth. More specifically, some women are better able to regain or improve on the wage and occupational status level of their prebirth job than others; in this section we briefly examine the factors that appear to be related to changes in wages and occupational status among these "early returnees."

Overall, both black and white women who returned to the work force were surprisingly successful in recouping and improving on their prebirth wage and occupational status. White women on average attained an hourly wage on their first postbirth job 11 percent above that of their last prebirth job; black women did even better averaging a 17 percent increase (all wages are adjusted to 1967 dollars). Also, white women increased their occupational status level (as measured by the Bose Index) by 6 percent and black women moved up by 11 percent. Part of these significant increases undoubtedly reflected a "selecting out" process occurring whereby those women who were able to find a job which provided above average wage or status were more likely to return to work.[20] The somewhat better ability of blacks to improve on their prebirth wage level should be tempered by the knowledge that their average prebirth wage was well below that of their white counterparts, as they earned on average $1.34 an hour compared with $1.78 for the white respondents.

In order to examine more carefully the variations among different subgroups in the ability to retain or improve on prebirth wages and status, multiple classification analyses regressing wage change and occupational status change on a number of personal and prebirth job-related characteristics were performed (Tables 3.8 and 3.9). After controlling for prebirth wage levels, it is evident that better-educated women are best able to improve on both their prebirth wages and occupational status. Whereas black and white high school dropouts on average exactly attained their prebirth wage level, white women with at least a high school diploma improved their wages by over 10 percent and then black counterparts showed a 25 percent increase. Similar patterns were evidenced with respect to occupational status. The substantial improvement for better-educated black women is consistent with our earlier discussions which highlighted the fact that these women were more likely to return to the labor force than any other race-education group. The more successful that women in a particular group expect to be in their labor market search, in terms of maintaining or improving on an earlier job position, the more likely they will be to seek employment.

In addition, women whose absence from employment (associated with childbearing) was relatively brief tended to be more successful at improving on earlier wage levels, as shown by the fact that a lesser

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[20] One should keep in mind, however, that we are in no sense focusing here on a rare event. As already demonstrated in this chapter, substantial proportions of women, particularly blacks, return to work soon after the birth of their first child.

Table 3.8 Unadjusted and Adjusted Ratios[a] of Hourly Rate of Pay at First Postbirth Job to Hourly Rate of Pay at Last Prebirth Job by Race: Multiple Classification Analysis[b]

Characteristics	Number of respondents	Unadjusted ratio	Adjusted ratio	F-ratio
	WHITES			
Same employer				2.29
Yes	142	107	108	
No	221	114	114	
Hourly rate of pay at last prebirth job (adjusted to 1967 dollars)				27.95***
$0 - 1.49	103	132	134	
$1.50 - 1.99	121	105	107	
$2.00 or more	139	102	98	
Highest grade of schooling completed				3.30**
0-11	59	111	99	
12	207	113	114	
13	97	107	112	
Occupation on last prebirth job				2.71**
Professional/managerial	59	110	120	
Clerical/sales	177	105	106	
Service	66	125	117	
Other	61	113	110	
Class of worker at last prebirth job				0.53
Private	308	111	111	
Public	55	111	115	
Enrollment status				3.45*
Enrolled	49	126	120	
Not enrolled	314	109	110	
Number of months between prebirth and postbirth jobs				4.21***
0-6	184	111	118	
7-12	64	115	110	
13-24	74	109	102	
25 or more	41	111	100	
Grand mean	363	111	111	4.98***
R^2 (adjusted)				.13

(Table continued on next page.)

Table 3.8 Continued

Characteristics	Number of respondents	Unadjusted ratio	Adjusted ratio	F-ratio
	BLACKS			
Same employer				0.53
Yes	64	104	122	
No or not ascertainable	146	122	114	
Hourly rate of pay at last prebirth job (adjusted to 1967 dollars)				9.28***
$0 - 1.49	117	134	135	
$1.50 - 1.99	50	102	102	
$2.00 or more	43	88	85	
Highest grade of schooling completed				3.68**
0-11	77	116	101	
12	105	119	128	
13-18	28	110	123	
Occupation on last prebirth job				0.20
Professional/managerial	13	93	115	
Clerical/sales	80	116	122	
Service	52	124	113	
Other	65	117	115	
Class of worker at last prebirth job				0.79
Private	160	119	119	
Public	50	108	109	
Enrollment status				9.77***
Enrolled	72	137	137	
Not enrolled	138	106	106	
Number of months between prebirth and postbirth jobs				0.53
0-6	83	107	112	
7-12	52	125	126	
13-24	58	123	118	
25 or more	17	123	107	
Grand mean	210	117	117	2.21***
R^2 (adjusted)				.07

a Ratioes are multiplied by 100.
b Universe consists of women employed before and after the birth of their first child.
* Significant at the 10 percent level.
** Significant at the 5 percent level.
*** Significant at the 1 percent level.

Table 3.9 Unadjusted and Adjusted Ratios[a] of Occupational Status (Bose Index) at First Postbirth Job to Occupational Status at Last Prebirth Job, by Race: Multiple Classification Analysis[b]

Characteristic	Number of respondents	Unadjusted ratio	Adjusted ratio	F-ratio
	WHITES			
Same employer				0.21
Yes	157	99	105	
No or not ascertainable	293	110	107	
Bose index score of last prebirth job				37.01***
0-29	72	147	148	
30-39	85	112	111	
40-49	65	102	101	
50-59	191	94	94	
60 or more	37	85	82	
Highest grade of schooling completed				6.15***
0-11	107	112	97	
12	229	106	106	
13-18	114	101	114	
Class of worker at last prebirth job				1.14
Private	377	109	107	
Public	73	91	102	
Enrollment status				12.30***
Enrolled	76	128	118	
Not enrolled	374	101	103	
Number of months between prebirth and postbirth job				0.77
0-6	205	100	107	
7-12	77	105	103	
13-24	103	107	103	
25 or more	65	124	110	
Grand mean	450	106	106	13.90***
R^2 (adjusted)				.26

(Table continued on next page.)

Table 3.9 Continued

Characteristics	Number of respondents	Unadjusted ratio	Adjusted ratio	F-ratio
	BLACKS			
Same employer				2.25
Yes	70	102	105	
No or not ascertainable	176	115	113	
Bose index score of last prebirth job				22.30***
0-29	75	144	145	
30-39	63	104	104	
40-49	36	100	100	
50-59	63	90	89	
60 or more	9	80	76	
Highest grade of schooling completed				2.91*
0-11	116	113	105	
12	100	111	115	
13-18	30	100	121	
Class of worker at last prebirth job				0.00
Private	195	114	111	
Public	51	97	111	
Enrollment status				10.48***
Enrolled	91	120	122	
Not enrolled	155	105	105	
Number of months between prebirth and postbirth jobs				2.91**
0-6	95	108	117	
7-12	57	103	104	
13-24	69	125	112	
25 or more	25	103	92	
Grand mean	246	111	111	8.20***
R^2 (adjusted)				.26

a Ratioes are multiplied by 100.

b Universe consists of women employed before and after the birth of their first child.

* Significant at the 10 percent level.

** Significant at the 5 percent level.

*** Significant at the 1 percent level.

number of months between "last" and "first" jobs is generally associated with better wage retention. This is consistent with the notion that a shorter period of absence is associated not only with a smaller depreciation of specific and general skills acquired on earlier jobs, but in addition, probably reflects closer continuing ties with the job market.[21] A woman who is absent from work for only a relatively brief time probably, on average, still has better personal job contacts and a greater awareness of available employment opportunities.

Class of worker at last prebirth job was included in the analysis because we hypothesized that civil service provisions and (perhaps) more liberal maternity leave policies in the public sector would result in government workers being better able to retain their prebirth wage and occupational status levels. There is little evidence to support this hypothesis, however.

CONCLUSION

The results of this chapter are suggestive of continuing dramatic increases in labor force participation levels at that life cycle point where women, for the most part, have traditionally withdrawn from market work activities. Young women now clearly stay in the labor force until they are within a few months of the birth of their first child, and frequently return to the labor force shortly after the birth. This is particularly true for black women.

Reflecting both a relatively short interval away from work as well as the likelihood that women with better job options appear to be the first ones to return, most of the women who do return within a brief time span are relatively successful in at least regaining their prebirth occupational status and wages; and in many instances they return at levels substantially above those of their prebirth jobs.

From a policy perspective, all of the above suggests that both in- and out-of-school guidance, training and education should be aimed at assisting young women in planning for work careers that will probably be substantially continuous, rather than following the traditional modal pattern of postschool work, extensive interruption for childbearing and child rearing and, perhaps, a return to work when the children reach school age. The average young woman in high school (or college) may not be cognizant of contemporary realities; thus, guidance programs should emphasize the likely short-term work interruption that young women now encounter, and education and training programs should be geared toward patterns of continuing rather than widely intermittent lifetime employment.

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[21] For evidence on this point, see Sandell and Shapiro (in press).

The results of this chapter present a mixed picture concerning the ability of women at this life cycle stage to be successful in the labor market. We have demonstrated that the unemployment rate for white women reaches 20 percent and for black women exceeds 30 percent in the months following the first birth, even though virtually all of these women have had recent labor market experience. On the other hand, we have also shown that those who do find jobs often are quite successful.

Generally speaking, the employment related experiences of these women parallel the experiences of the adult population at large; that is, those with less education and skills have disproportionate difficulty finding employment and attaining satisfactory wages and occupational status. The most satisfactory adjustments are made by those with the most education. This is particularly true for black women.

It appears that better institutional means are necessary for helping many of these young women--particularly those with less education and work-related skills--with their reentry problems as well as ensuring maximum compliance with maternity-related employment provisions. Where these provisions are inadequate, perhaps stronger employment provisions are needed for ensuring more equitable wages, hours and working conditions for this increasingly important segment of the American labor force.

From a research perspective, it is apparent that the lifetime work orientation of women is gradually approaching the more continuous pattern followed by men. As such, theoretical economic modeling of female labor force participation--both short and long term--may in the years ahead be more closely approximated by the standard theoretical perspectives previously appropriate only for diagnosing male work activity.

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APPENDIX

Glossary of Variable and Universe Descriptions

Universe Descriptions

In the analysis of labor force participation rates before the first birth, a respondent is not selected for any cross-sectional universe unless her first child was born between the 1968 and 1973 interview dates. Each model requires a scan of all survey dates (1968 to 1973) in order to select women in the appropriate time interval relative to the child's birth. As a result of this procedure, any one respondent may be represented in more than one model. Information for the explanatory variables is drawn from the survey at which the respondent reaches the required time period for each model. As an additional universe restriction, no respondent can be enrolled in school at the survey date referenced.

Respondents selected for the change in wage and occupational status models must have been employed before and after the birth of their first child. The reference point for each explanatory variable is either implicit in the variable title or explained in the variable definition.

Dependent Variables

In the analysis of labor force participation rates surrounding the first birth there are a total of five dependent variables, each associated with one of five cross-sectional models. An individual who is in the labor force during the indicated time interval receives a value of one on the dependent variable, otherwise she receives a value of zero. The five selected time intervals are divided as follows: (1) eighteen to thirteen months prior to the birth of the first child; (2) twelve to six months before; (3) five to zero months before; (4) one to five months after the birth; and (5) six to twelve months after.

For the analysis of changes in wage before and after the first birth, the dependent measure is created by dividing the hourly rate of pay on the first postbirth job by the hourly rate of pay on the last prebirth job and multiplying the resulting quantity by 100. To construct the dependent variable for change in occupational status, the same technique is performed using the Bose Index score.

Explanatory Variables

Bose Index score of last prebirth job. The Bose Index is an ordinal measure of occupational prestige. For further detail, see Bose (1973). Variable is categorized as follows:

(1) 0 to 29
(2) 30 to 39
(3) 40 to 49
(4) 50 to 59
(5) 60 or more

Class of worker at last prebirth job. Variable is categorized as follows:

(1) Private sector
(2) Public sector

Does health limit the amount or kind of work respondent can do? Variable is categorized as follows:

(1) Yes
(2) No

Does respondent desire to work at age 35? Variable is categorized as follows:

(1) Yes
(2) No or Don't know

Enrollment status. For the change in wage and occupational status models, this variable is measures as of the survey year in which the last prebirth job ended. If a woman never stopped her prebirth job, then the reference point is the survey year in which her child was born. Variable is categorized as follows:

(1) Enrolled
(2) Not enrolled

Highest grade of schooling completed. For the change in wage and occupational status models, this variable is measured as of the survey year in which the first postbirth job began. If a woman never stopped her last prebirth job, then the reference point is the survey year in which her child was born. Variable is categorized as follows:

(1) 0 to 11
(2) 12
(3) 13 to 18

Hourly rate of pay at last prebirth job. Wages are adjusted to 1967 dollars. Variables is categorized as follows:

(1) $0 to 1.49
(2) $1.50 to 1.99
(3) $2.00 or more

Is the employer on last prebirth job the same as the employer on first postbirth job? Variable is categorized as follows:

(1) Yes
(2) No or Not ascertainable

Marital status. Variable is categorized as follows:

(1) Married, spouse present
(2) Other, which includes: married, spouse absent; widowed; divorced; separated; never married

Number of months between last prebirth job and first postbirth job. Variable is categorized as follows:

(1) 0 to 6
(2) 7 to 12
(3) 13 to 24
(4) 25 or more

Occupation (1-digit) on last prebirth job. Variable is categorized as follows:

(1) Professional, Technical and Kindred Workers, Managers, Officials, and Proprietors
(2) Clerical and Kindred Workers, Sales Workers
(3) Service Workers, except private household
(4) Craftsmen, Foremen, and Kindred Workers; Operatives and Kindred Workers; Private household workers; Farmers and Farm Managers; Farm Laborers and Foremen; Laborers, except Farm and Mine

Other adults age 21 or older other than respondent or respondent's husband present in household. Variable is categorized as follows:

(1) Yes
(2) No

Potential wage. Separate wage equations were estimated for white and black working women. Wages were expressed in 1967 dollars.

For whites the wage equation is as follows (with t statistics in parentheses):

$$\text{WAGE} = \underset{(2.99)}{143.38} - \underset{(-2.80)}{20.802 \times (\text{EDUCATION})} + \underset{(5.64)}{1.6313 \times (\text{EDUCATION}^2)}$$

$$+ \underset{(9.25)}{20.357 \times (\text{WORK EXPERIENCE})} - \underset{(-4.47)}{.97405 \times (\text{WORK EXPERIENCE}^2)}$$

$$+ \underset{(5.01)}{24.725 \times (\text{SMSA})} - \underset{(-1.25)}{6.4141 \times (\text{SOUTH})}$$

No. of observations = 1,482 R^2 (adjusted) = .26

For blacks, the wage equation is as follows (with t statistics in parentheses):

$$\text{WAGE} = \underset{(3.59)}{186.22} - \underset{(-2.33)}{19.717}\times(\text{EDUCATION}) + \underset{(4.05)}{1.4391}\times(\text{EDUCATION}^2)$$

$$+ \underset{(6.89)}{17.022}\times(\text{WORK EXPERIENCE}) - \underset{(-5.20)}{1.2564}\times(\text{WORK EXPERIENCE}^2)$$

$$+ \underset{(3.35)}{20.748}\times(\text{SMSA}) - \underset{(-7.28)}{40.068}\times(\text{SOUTH})$$

No. of observations = 523 R^2 (adjusted) = .33

The potential wage variable was then created by using the coeffiicents of the above equations in conjunction with the characteristics of each respondent (i.e., education, work experience, etc.) to impute a potential wage rate for each respondent, regardless of whether or not she was currently in the labor force. Variable is categorized as follows:

(1) $1.24 or less per hour
(2) $1.25 - 1.99
(3) $2.00 or more
(4) Not ascertainable

Total family income less respondent's earnings. (Adjusted to 1967 dollars). Variable is categorized as follows:

(1) Less than $3,000
(2) $3,000 to 7,499
(3) $7,500 or more
(4) Not ascertainable

Table 3A.1 Unadjusted and Adjusted Proportions of Respondents in the Labor Force 13 to 18 Months Before First Birth, by Race: Multiple Classification Analysis[a]

Characteristic	Number of respondents	Unadjusted proportion	Adjusted proportion	F-ratio
	WHITES			
Total family income less respondent's earnings (adjusted to 1967 dollars)				2.54*
Less than $3,000	51	.83	.83	
$3,000 - 7,499	111	.89	.90	
$7,500 or more	68	.84	.83	
Not ascertainable	28	.69	.70	
Health limitation				0.21
Yes	11	.70	.79	
No	247	.85	.84	
Highest grade of schooling completed				0.13
0-11	33	.71	.85	
12	149	.84	.83	
13-18	76	.90	.86	
Does respondent desire to work at age 35?				0.11
Yes	54	.84	.86	
No or Don't know	204	.84	.84	
Marital status				2.06
Married, spouse present	175	.84	.82	
Other	83	.85	.89	
Potential wage (adjusted to 1967 dollars)				8.90***
$1.24 or less per hour	16	.42	.42	
$1.25 - 1.99	104	.82	.81	
$2.00 or more	132	.90	.91	
Not ascertainable	6	.84	.83	
Grand mean	258	.84	.84	3.13***
R^2 (adjusted)				.08
	BLACKS			
Total family income less respondent's earnings (adjusted to 1967 dollars)				1.01
Less than $3,000	27	.87	.87	
$3,000 - 7,499	40	.79	.79	
$7,500 or more	10	1.00	1.02	
Not ascertainable	8	.90	.90	
Health limitation				0.25
Yes	1	1.00	1.03	
No	84	.85	.84	
Highest grade of schooling completed				0.68
0-11	32	.81	.83	
12	43	.86	.83	
13-18	10	.92	.97	
Does respondent desire to work at age 35?				0.01
Yes	46	.87	.85	
No or Don't know	39	.82	.84	
Marital status				0.51
Married, spouse present	26	.82	.80	
Other	59	.86	.86	
Potential wage (adjusted to 1967 dollars)				1.19
$1.24 or less	21	.75	.76	
$1.25 - 1.99	45	.89	.90	
$2.00 or more	15	.80	.76	
Not ascertainable	4	1.00	1.01	
Grand mean	85	.85	.85	0.65
R^2 (adjusted)				-.05

[a] Universe consists of women who were not enrolled at the appropriate reference point.

* Significant at the 10 percent level.

*** Significant at the 1 percent level.

Table 3A.2 Unadjusted and Adjusted Proportions of Respondents in the Labor Force 6 to 12 Months Before First Birth, by Race: Multiple Classification Analysis[a]

Characteristic	Number of respondents	Unadjusted proportion	Adjusted proportion	F-ratio
	WHITES			
Total family income less respondent's earnings (adjusted to 1967 dollars)				5.61***
Less than $3,000	82	.81	.83	
$3,000 - 7,499	201	.79	.80	
$7,500 or more	97	.68	.63	
Not ascertainable	49	.66	.68	
Health limitation				1.55
Yes	28	.57	.66	
No	401	.77	.76	
Highest grade of schooling completed				1.29
0-11	77	.53	.70	
12	253	.78	.78	
13-18	99	.84	.73	
Does respondent desire to work at age 35?				0.40
Yes	115	.77	.77	
No or Don't know	314	.75	.75	
Marital status				16.92***
Married, spouse present	319	.74	.71	
Other	110	.80	.88	
Potential wage (adjusted to 1967 dollars)				27.05***
$1.24 or less per hour	48	.36	.35	
$1.25 - 1.99	198	.73	.70	
$2.00 or more	173	.88	.92	
Not ascertainable	10	.73	.67	
Grand mean	429	.75	.75	8.75***
R^2 (adjusted)				.17
	BLACKS			
Total family income less respondent's earnings (adjusted to 1967 dollars)				3.16**
Less than $3,000	55	.79	.84	
$3,000 - 7,499	50	.84	.83	
$7,500 or more	17	.71	.58	
Not ascertainable	15	.95	.95	
Health limitation				20.12***
Yes	11	.29	.30	
No	126	.85	.85	
Highest grade of schooling completed				0.45
0-11	42	.71	.86	
12	81	.85	.81	
13-18	14	.89	.76	
Does respondent desire to work at age 35?				0.00
Yes	70	.76	.82	
No or Don't know	67	.86	.82	
Marital status				2.10
Married, spouse present	54	.77	.76	
Other	83	.85	.85	
Potential wage (adjusted to 1967 dollars)				8.36***
$1.24 or less per hour	29	.62	.57	
$1.25 - 1.99	80	.80	.80	
$2.00 or more	22	1.00	1.03	
Not ascertainable	6	.88	.83	
Grand mean	137	.82	.82	3.43***
R^2 (adjusted)				.21

[a] Universe consists of women who were not enrolled at the appropriate reference point.
** Significant at the 5 percent level.
*** Significant at the 1 percent level.

Table 3A.3 Unadjusted and Adjusted Proportions of Respondents in the Labor Force 0 to 5 Months Before First Birth, by Race: Multiple Classification Analysis[a]

Characteristic	Number of respondents	Unadjusted proportion	Adjusted proportion	F-ratio
	WHITES			
Total family income less respondent's earnings (adjusted to 1967 dollars)				0.58
Less than $3,000	81	.42	.44	
$3,000 - 7,499	200	.44	.45	
$7,500 or more	99	.44	.38	
Not ascertainable	46	.38	.41	
Health limitation				2.68
Yes	21	.51	.58	
No	405	.42	.42	
Highest grade of schooling completed				5.92***
0-11	88	.15	.28	
12	230	.47	.47	
13-18	108	.57	.46	
Does respondent desire to work at age 35?				0.98
Yes	130	.50	.46	
No or Don't know	296	.40	.41	
Marital status				4.32**
Married, spouse present	364	.43	.41	
Other	62	.40	.54	
Potential wage (adjusted to 1967 dollars)				19.19***
$1.24 or less per hour	50	.05	.13	
$1.25 - 1.99	180	.32	.31	
$2.00 or more	180	.61	.60	
Not ascertainable	16	.48	.47	
Grand mean	426	.43	.43	8.12***
R^2 (adjusted)				.16
	BLACKS			
Total family income less respondent's earnings (adjusted to 1967 dollars)				0.83
Less than $3,000	51	.43	.41	
$3,000 - 7,499	72	.45	.48	
$7,500 or more	16	.61	.52	
Not ascertainable	31	.55	.57	
Health limitation				1.40
Yes	16	.57	.60	
No	154	.47	.47	
Highest grade of schooling completed				1.36
0-11	73	.35	.41	
12	78	.56	.52	
13-18	19	.64	.57	
Does respondent desire to work at age 35?				0.17
Yes	101	.48	.50	
No or Don't know	69	.49	.47	
Marital status				1.92
Married, spouse present	74	.48	.43	
Other	96	.49	.53	
Potential wage (adjusted to 1967 dollars)				5.37***
$1.24 or less per hour	51	.23	.28	
$1.25 - 1.99	84	.53	.52	
$2.00 or more	30	.73	.69	
Not ascertainable	5	.20	.21	
Grand mean	170	.48	.48	2.52***
R^2 (adjusted)				.09

a Universe consists of women who were not enrolled at the appropriate reference point.
** Significant at the 5 percent level.
*** Significant at the 1 percent level.

Table 3A.4 Unadjusted and Adjusted Proportions of Respondents in the Labor Force 1 to 5 Months After First Birth, by Race: Multiple Classification Analysis[a]

Characteristic	Number of respondents	Unadjusted proportion	Adjusted proportion	F-ratio
	WHITES			
Total family income less respondent's earnings (adjusted to 1967 dollars)				0.42
Less than $3,000	72	.31	.35	
$3,000 - 7,499	211	.37	.37	
$7,500 or more	107	.35	.32	
Not ascertainable	52	.30	.31	
Health limitation				0.05
Yes	18	.35	.37	
No	424	.35	.35	
Highest grade of schooling completed				0.05
0-11	95	.33	.36	
12	246	.35	.35	
13-18	101	.37	.34	
Does respondent desire to work at age 35?				13.26***
Yes	164	.45	.45	
No or Don't know	278	.28	.28	
Marital status				0.63
Married, spouse present	397	.34	.34	
Other	45	.45	.40	
Potential wage (adjusted to 1967 dollars)				1.07
$1.24 or less per hour	57	.30	.29	
$1.25 - 1.99	183	.34	.33	
$2.00 or more	180	.38	.39	
Not ascertainable	22	.31	.26	
Other adult age 21 or older present in household				3.22*
Yes	74	.43	.44	
No	368	.33	.33	
Grand mean	442	.35	.35	1.70*
R^2 (adjusted)				.02
	BLACKS			
Total family income less respondent's earnings (adjusted to 1967 dollars)				0.07
Less than $3,000	54	.52	.53	
$3,000 - 7,499	73	.48	.49	
$7,500 or more	23	.53	.49	
Not ascertainable	21	.56	.53	
Health limitation				0.00
Yes	2	.41	.50	
No	169	.51	.51	
Highest grade of schooling completed				3.51**
0-11	70	.41	.42	
12	86	.54	.52	
13-18	15	.72	.78	
Does respondent desire to work at age 35?				2.58
Yes	109	.57	.55	
No or Don't know	62	.40	.43	
Marital status				0.29
Married, spouse present	90	.50	.49	
Other	81	.53	.53	
Potential wage (adjusted to 1967 dollars)				2.41*
$1.24 or less per hour	39	.28	.35	
$1.25 - 1.99	103	.59	.59	
$2.00 or more	20	.49	.41	
Not ascertainable	9	.49	.51	
Other adult age 21 or older present in household				0.69
Yes	86	.53	.54	
No	85	.49	.48	
Grand mean	171	.51	.51	1.55*
R^2 (adjusted)				.04

a Universe consists of women who were not enrolled at the appropriate reference point.
* Significant at the 10 percent level.
** Significant at the 5 percent level.
*** Significant at the 1 percent level.

Table 3A.5 Unadjusted and Adjusted Proportions of Respondents in the Labor Force 6 to 12 Months After First Birth, by Race: Multiple Classification Analysis[a]

Characteristics	Number of respondents	Unadjusted proportion	Adjusted proportion	F-ratio
	WHITES			
Total family income less respondent's earnings (adjusted to 1967 dollars)				2.70**
Less than $3,000	80	.44	.45	
$3,000 - 7,499	264	.41	.42	
$7,500 or more	153	.33	.30	
Not ascertainable	51	.39	.39	
Health limitation				0.34
Yes	29	.32	.34	
No	519	.39	.39	
Highest grade of schooling completed				0.35
0-11	127	.32	.36	
12	293	.40	.39	
13-18	128	.43	.41	
Does respondent desire to work at age 35?				0.06
Yes	240	.39	.38	
No or Don't know	308	.39	.39	
Marital status				3.58*
Married, spouse present	495	.37	.38	
Other	53	.53	.51	
Potential wage (adjusted to 1967 dollars)				6.50***
$1.24 or less per hour	73	.17	.15	
$1.25 - 1.99	228	.42	.40	
$2.00 or more	215	.42	.44	
Not ascertainable	32	.46	.46	
Other adult age 21 or older present in household				1.52
Yes	70	.44	.45	
No	478	.38	.38	
Grand mean	548	.39	.39	2.53***
R^2 (adjusted)				.03
	BLACKS			
Total family income less respondent's earnings (adjusted to 1967 dollars)				2.15*
Less than $3,000	87	.52	.52	
$3,000 - 7,499	107	.51	.53	
$7,500 or more	38	.80	.75	
Not ascertainable	21	.60	.61	
Health limitation				0.24
Yes	16	.64	.62	
No	237	.56	.56	
Highest grade of schooling completed				2.25
0-11	96	.48	.53	
12	128	.57	.55	
13-18	29	.81	.74	
Does respondent desire to work at age 35?				0.81
Yes	136	.60	.59	
No or Don't know	117	.52	.53	
Marital status				5.82**
Married, spouse present	133	.54	.49	
Other	120	.59	.64	
Potential wage (adjusted to 1967 dollars)				2.60**
$1.24 or less per hour	73	.44	.49	
$1.25 - 1.99	125	.62	.61	
$2.00 or more	39	.71	.67	
Not ascertainable	16	.37	.36	
Other adult age 21 or older present in household				0.70
Yes	137	.56	.54	
No	116	.57	.59	
Grand mean	253	.56	.56	2.33***
R^2 (adjusted)				.06

[a] Universe consists of women who were not enrolled at the appropriate reference point.
* Significant at the 10 percent level.
** Significant at the 5 percent level.
*** Significant at the 1 percent level.

CHAPTER 4

OCCUPATIONAL EXPECTATIONS FOR AGE 35

Patricia K. [illegible]rito and Carol L. Jusenius

INTRODUCTION

Over the past several years there has been a growing interest in occupational patterns of female employment. Evidence of this is the expanding literature on the extent to which women are concentrated in a relatively small number of occupations and on the extent to which women are moving out of these "stereotypically female" occupations and into ones which have been characterized as "stereotypically male."[1] Concurrently, there has been much concern about the effects on women of changing demands for workers in specific occupations. For example, the projected oversupply of individuals training to become teachers has significant ramifications for college-educated women.[2]

This chapter explores both these areas. Focusing on the young women who in 1973 indicated they expected to be working outside the home at age 35, in the first major section we analyze the characteristics of those who stated a desire to be in occupations typically held by men. In the second major section, we examine the extent to which these women's aspirations regarding employment in specific occupations have changed between 1968 and 1973 and the relationship between the shifts and projected demand.

OCCUPATIONAL PREFERENCE: TYPICAL VS. ATYPICAL OCCUPATIONS

Occupational segregation of women in the American labor market has been a persistent phenomenon. According to the 1940 decennial census, 63 percent of all women in the labor force were in occupational categories in which 50 percent or more of the incumbents were female; by 1970, the comparable percentage was about 65 percent.[3]

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[1] For example, see Oppenheimer (1973); Jusenius and Shortlidge (1975); and Fuchs (1975).

[2] For example, see The Carnegie Commission on Higher Education (1973).

[3] The 1970 estimate is based on figures for the experienced civilian labor force from U.S. Department of Commerce, Occupational Characteristics. The 1970 occupational categories were coded into the 1960 classification scheme, which is more nearly comparable to that used in 1940. See Priebe, Heinkel and Greene (1972).

The Importance of Occupational Segregation

Research has found that occupational segregation has had a profound effect on wages. Workers of both sexes who are in predominantly female occupations earn substantially less than similarly educated persons in characteristically male occupations.[4]

Given that workers in typically female occupations are at an economic disadvantage relative to their counterparts in typically male occupations, it is not clear why women enter these occupations. Proponents of affirmative action programs have argued that demand-side factors, i.e., the preference of employers for men or women in certain occupations, are to a large extent responsible for the extant occupational segregation. However, when young women who expect to be working at age 35 are asked in what occupation they would like to be, the vast majority mention occupations typically held by women (Table 4.1). Hence, it seems probable that the predominance of women in certain occupations reflects, in part, their own preferences. Stated another way, it appears that supply-side factors are also responsible for occupational segregation.

To the extent that women prefer a typically female occupation, affirmative action programs directed solely at employers will not substantially reduce occupational segregation. Hence, in addition to pursuing a vigorous affirmative action program, public policy undoubtedly should be concerned with counseling and educational programs if young women are to be informed about the full range of available occupations.

If the observed preferences of women for a relatively small number of occupations do reflect their tastes for particular kinds of work, this suggests that stereotypically female occupations may have characteristics which correspond especially well to women's requirements. For example, job opportunities in these occupations may permit geographic mobility, hours of work may be flexible, or there may be little financial penalty associated with leaving and subsequently reentering the labor force.

An alternative, but not mutually exclusive, explanation is that the choice of a typically female occupation is the product of the socialization process within the family and society or of the policies of educational institutions. To some extent, the personal attributes of a young woman should reflect her past social or educational experiences. To the degree that these determine the strength of her labor market commitment and her views on which occupations are suitable for women, one would expect the probability

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[4] Treiman and Terrell (1975). See also Jusenius (1976).

Table 4.1 Sex-typing of Occupation Desired for Age 35, by Educational Expectations and Race, 1968 and 1973[a]

(Percentage distributions)

Sex-type of occupation preferred[b]	1968		1973	
	Whites	Blacks	Whites	Blacks
	Noncollege[c]			
Number of respondents	443	358	507	302
Total percent	100	100	100	100
Atypical	14	10	19	13
Typical	86	90	81	87
	College[c]			
Number of respondents	448	279	877	339
Total percent	100	100	100	100
Atypical	23	15	25	22
Typical	77	85	75	78

[a] Sample size in 1968 differs from that in 1973 because each constitutes an independent cross-section of the respondents.

[b] Occupations are defined as "atypical" or "typical" for females by a comparison of the percentage of the 1970 labor force which was female with the percentage of an occupation's incumbents who were female. See p. 118 for a more complete explanation.

[c] "Noncollege" refers to those respondents who have completed less than 13 years of school and say that they do not expect to go to college. "College" refers to those respondents who have at least one year of college, are attending college, or indicate they expect to go to college.

of choosing a stereotypically masculine career to vary by the personal characteristics of the respondent.

In this chapter, we attempt to identify the personal characteristics of women that are correlated with the choice of a typically male occupation. By limiting our analysis in this fashion, we do not deal with the characteristics of the occupations themselves that might make them especially attractive or convenient for women. Nevertheless, identification of those attributes of young women which influence their preferences for typically male or female occupations is important: it provides information necessary for the formulation of public policy aimed at reducing supply-side barriers to entry into typically male occupations.

Clearly there are a myriad of factors associated with both the individual and specific types of work which influence a woman's choice of occupation. In selecting among them, we have chosen to focus on those suggested by previous research in the area of women's occupational preferences.

Previous Research

Previous research on this subject can be roughly characterized as reflecting two schools of thought. One group of studies, found chiefly in the vocational and psychological counseling literature, has suggested that the concentration of women in a relatively small number of occupations reflects the differentiated sex roles found within the family and society. For instance, a mother's role as "homemaker" and a father's role as "income-earner" may act as signaling devices to the daughter regarding her expected role as an adult. Familial roles that provide a woman with a broader view of her "proper" sphere will also tend to increase the probability of her entering a less traditional occupation.[5] A second argument has been that family size and the sex distribution of the children are factors which influence a young woman's occupational choice. For a given level of income, the smaller the number of children, the greater the amount of resources which can be devoted to each child. Furthermore, if a young woman is an only child or if there are no sons in the household, all the parents' ambitions will be centered on the daughter(s). Thus in small families, there is a higher probability that daughters will receive the financial aid and encouragement necessary for those atypical, professional occupations which require extensive training.[6]

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[5] For examples, see Almquist and Angrist (1971); Klemmack and Edwards (1973); Nagely (1971).

[6] Roe (1953); Klemmack and Edwards (1973).

Another group of researchers, notably human capital theorists, have suggested that women's concentration in a select number of occupations may arise from a rational economic motive. These economists argue that when earnings over the life cycle are considered, incumbents of typically female occupations may not be at an economic disadvantage relative to their counterparts in typically male occupations.[7] That is, if typically female occupations are characterized by a relatively high initial wage and a relatively flat life-time earnings profile, it may be economically rational for woman to enter these occupations if they expect a short working career. In contrast, men, who typically foresee a long working career, tend to invest in themselves by entering occupations which may have a lower initial wage but higher future earnings. Women who also expect a sufficiently long working career would behave in a manner similar to their male counterparts: they would be willing to sacrifice present wages to maximize wages over the long run. Hence, these women would be interested in the same types of occupations as men and would be likely to choose an occupation in which men predominate.

The Empirical Model

The model of occupational choice presented in this chapter refines both the human capital and the vocational counseling perspectives of occupational preference. First, it includes in one empirical model both those variables describing aspects of the childhood familial environment suggested by the literature in vocational counseling and those measures of career commitment suggested by the human capital school. Second, it is assumed in this model that while the roles played by one's parents are important determinants of occupational choice, their effect may be modified by later schooling and work experience. Hence, it includes variables measuring certain aspects of previous educational and labor market experiences.

Finally, the model advances the human capital perspective by differentiating between women who expect to attend college and those who do not. At the college level, a higher proportion of stereotypically male professions (e.g., lawyer, physician) require graduate school attendance and imply a greater investment in human capital through on-the-job training than is the case among stereotypically female professions. Such investments are typically associated with a strong commitment to the labor force. Thus in line with human capital reasoning, for college women we hypothesize that an expectation of being in a male occupation would be significantly associated with those variables which measure the probable extent of future labor market participation. In contrast to standard human capital reasoning, we suggest that male occupations accessible to noncollege women (e.g., bartender) may not necessarily require more investment through formal education or on-the-job training than would a female occupation (e.g., secretary). To the extent that the two types of occupations do not differ in the amount of required investment in human capital, the choice of one or the other is unlikely to be associated with measures of career commitment.

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[7] Zellner (1975); Chiswick et al., (1975).

Specifically, the model explores the correlates of the expectation of being in a typically male occupation at age 35 as reported by young women who anticipate being in the labor force at that age. Thus, we deal with plans, outlined in 1973, for a time which is from six to sixteen years in the future.[8]

The technique employed in this investigation is Multiple Classification Analysis (MCA). With MCA we can determine for each category of every independent variable what proportion of women anticipated a male occupation at age 35, assuming that members of the category are "average" in terms of all other variables included. Differences in these proportions among the several categories of a variable are interpreted as indicating the "pure" association of that variable with the probability of a young woman's choosing an atypical occupation.

The dependent variable is dichotomous with the value of 1 if the woman aspired to a typically male occupation and 0 if her choice was a typically female occupation. (For simplicity, those occupations which are stereotypically male will be referred to as "atypical," those which are stereotypically female, as "typical.") Typical occupations are defined empirically as those in which the percentage of incumbents who are women exceeds the percentage of women represented in the total experienced civilian labor force. Since women were 38.1 percent of the experienced civilian labor force in 1970, typical occupations thus are those in which 38.2 percent or more of the incumbents in 1970 were women. In an analogous fashion, atypical occupations are those in which 38.1 percent or less of the workers were women in 1970. By this definition, about 75 percent of the women in the experienced civilian labor force at the time of the 1970 census would have been classified as being in a typical occupation.[9]

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[8] We believe that by studying expectations, we have a "purer" measure of occupational choice than is found in studies that examine a woman's presence in a particular occupation since presence in an occupation is clearly determined by both demand conditions and personal preferences. Of course, the respondent may prefer an occupation simply because she feels job prospects are good in that field, but it is felt that the question of what she would like to be doing at age 35, by virtue of its being less related to present labor market conditions, is a better measure of preference.

The sample consists of young women who in 1973 stated that they expected to be in the labor force at age 35. This universe is stratified into four groups: for both black and white women (1) those who have attended college or expect to attend college and (2) those with no college who do not expect to attend college.[10] As already noted, the stratification by education was considered necessary since the implications for occupational choice of varying degrees of labor market commitment are different for college educated and high school educated women. The stratification by race was deemed necessary because of the probability that black and white women live in different social contexts which influence the formation of occupational expectations.[11]

Empirical Results

For ease of exposition, the total set of independent variables has been divided into three major headings: Familial Environment, Educational and Labor Market Experience, and Potential Labor Market Involvement. The results are reported in Tables 4.2 to 4.4. The three separate tables represent one MCA for each race and education group.

In the following sections, empirical results for each of these categories of women is described in detail.[12] It should be noted at the outset that white college women had the highest proportion expecting to be in atypical occupations at age 35--25 percent. They were followed by black college women and white noncollege women, with 22 and 19 percent, respectively.

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[9] To define typical and atypical occupations, 1970 classifications were converted into their 1960 equivalents, using Priebe, Heinkel, and Greene, 1970 Occupational and Industry Classification, since occupations in the NLS data are reported in their 1960 codes. Other definitions, 5 and 10 percentage points above or below the 38.1 percent reference point, were tested in preliminary analysis. Since the results did not differ significantly among the three definitions, only the results of the one model are presented here.

[10] The results for black noncollege women are not discussed in the text but are reported in Appendix Table 4A.1. Two-thirds of those in this group who expected to be in an atypical occupation had been coded specifically as "operative, n.e.c." Hence our model seemed to be testing the probability of expecting to be an unskilled or semiskilled blue collar worker as much as expectations regarding an atypical occupation.

[11] Statistical analysis verified the need for stratification by race and education.

[12] It will be apparent to the reader that the empirical models reported here differ for race and educational categories. The

Familial Environment

This set of variables corresponds most closely to those which have been studied as determinants of occupational choice in the vocational counseling and psychology literature. Here, we hypothesized first that those women whose mothers were highly educated or had worked outside the home would have an above average probability of choosing an atypical occupation.

The empirical results indicate that the relationship between the mother's experiences and the daughter's occupational expectations differs by race and educational level. A variable representing the mother's education and type of occupation had a significant influence only on white women who expected to attend college (Table 4.2).[13] Even here, however, the hypothesis that the mother acted as a role model was not substantiated. Of the women who had lived with their mothers, only two groups had an above-average probability of preferring an atypical occupation: those whose mothers had a high school education only and had worked in a *typical* occupation and those whose mothers had at least some college, but were *not working* when the daughter was 14 years of age.

This finding does not necessarily imply that the mother had no influence on the young woman's occupational choice. As indicated in Table 4.2, white college women who lived in households headed by their mothers had a higher than average likelihood of expecting to be in an atypical occupation. This was not true for their black counterparts.[14]

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model for college whites was also run for college blacks and noncollege whites. The results are shown in Appendix Tables 4A.2 and 4A.3. Where a comparison of identical models is useful, the results are mentioned in footnotes to the text.

[13] The finding that mother's influence is not significant for noncollege whites or for college blacks is consistent with the findings in Tully, Stephan, and Chance (1976). While it conflicts with expectations based on the vocational education literature, the different results are explainable: the groups which had been tested in this literature were college women, race not know.

[14] See also Appendix Table 4A.2.

Table 4.2 Unadjusted and Adjusted[a] Percentages of Young Women Choosing an Atypical Occupation, by Selected Characteristics of Familial Environment, Race, and Educational Expectations: Multiple Classification Analysis[b]

Selected characteristics	Number of respondents	Unadjusted percent	Adjusted percent[a]	F-ratio
	White college[c]			
Mother's education and type of occupation[d]				2.63**
0 to 12 years school and:				
Worked at atypical occupation	44	11.7	11.4	
Worked at typical occupation	193	28.5	28.7	
Did not work	347	20.9	23.1	
13 to 18 years school and:				
Worked at atypical occupation	19	e	e	
Worked at typical occupation	83	26.8	20.9	
Did not work	131	28.4	26.3	
Did not live with mother	22	e	e	
Not ascertainable or occupation not reported	38	45.2	41.2	
Occupation of male head of household[d]				3.39**
Professional, technical or managerial	352	26.1	25.6	
Other	431	22.0	22.4	
Lived with mother only	63	37.6	39.8	
Not ascertainable or occupation not reported	31	28.5	23.7	
Number of siblings				4.32**
None	66	31.9	31.1	
1 or more	805	24.1	24.1	
Not ascertainable	6	e	e	
Birthplace of parents				3.19**
One or both parents born in Latin America, Central, Southern, or Eastern Europe	47	38.1	33.0	
Neither parent born in Latin America, Central, Southern, or Eastern Europe	818	27.7	24.9	
Did not live with either parent	11	e	e	
Not ascertainable	1	e	e	
Grand mean	877	24.9	24.9	3.38***
R^2 (adjusted)				.109

(Table continued on next page.)

Table 4.2 Continued

Selected characteristics	Number of respondents	Unadjusted percent	Adjusted percent[a]	F-ratio
	Black college[c]			
Family composition[d]				3.24**
Lived with mother and father and:				
Mother worked	120	21.7	22.0	
Mother did not work	102	17.9	15.1	
Lived with mother only and:				
Mother worked	56	17.5	17.6	
Mother did not work	12	e	e	
Other	49	32.0	34.6	
Education of head of household				0.49
Less than high school	200	18.5	20.8	
High school	56	27.0	24.1	
More than high school	27	35.8	29.0	
Not ascertainable	56	21.0	19.1	
Number of siblings				2.99**
2 or fewer	89	33.9	32.5	
3 or 4	93	18.2	17.7	
5 or more	155	17.1	18.1	
Not ascertainable	2	e	e	
Grand mean	339	21.9	21.9	1.86***
R^2 (adjusted)				.073
	White noncollege[c]			
Mother's employment[d]				0.38
Mother worked	199	19.2	19.8	
Mother did not work	275	19.3	18.9	
Did not live with mother	33	14.4	13.2	
Occupation of male head of household[d]				3.24**
Technical, professional, managerial	118	24.7	25.6	
Other	312	18.5	18.2	
Lived with mother only	53	8.9	6.9	
Not ascertainable or occupation not reported	24	e	e	
Grand mean	507	19.0	19.0	1.69**
R^2 (adjusted)				.041

[a] Percentages adjusted for the effects of all explanatory variables shown in Tables 4.2, 4.3, and 4.4. Variables presented in Tables 4.2, 4.3, and 4.4 represent the total model.

[b] Universe consists of respondents interviewed in 1973 and who planned to be working at age 35.

[c] "College" refers to those respondents who had completed at least one year of college, who were attending college, or who expected to attend college. "Noncollege" refers to those who had twelve years of education or less and who did not expect to attend college.

[d] Refers to time when respondent was fourteen years of age.

[e] Percentages not shown when base represents less than 25 respondents.

** Significant at the 5 percent level.

*** Significant at the 1 percent level.

For white women with no plans to attend college, the father proved to be a much greater influence than the mother in the daughter's expectation of an atypical occupation. Having had a father (or other male head of household) in a professional, technical or managerial occupation was positively associated with the choice of a typically male occupation. While this result could be interpreted as the effect of "father as role model," it is also possible that the result reflects the effect of family income on the daughter's occupational choice. Young women from families with relatively high incomes probably have better market information and exposure to a broader range of experiences than those from poorer backgrounds. Such an environment may well be conducive to the choice of an occupation atypical for women.

Finally, our hypothesis that the expectation of an atypical occupation would be associated with small family size is supported by the data for college women. Specifically, among white college women, those without siblings had a higher than average probability of aspiring to an atypical occupation. Among blacks, those with one or two siblings in the family, as well as those with none, showed a higher than average probability of choosing a typically male occupation.

Educational and Labor Market Experience

Clearly, the influence of a family on a young woman's career aspirations may be modified by her educational and labor market experience. For college students, the sex composition of the student body where a woman attends college might be expected to affect her occupational aspirations. One argument advanced in favor of female colleges has been that women in such an environment are less influenced by a stereotyping of sex roles which would discourage them from majoring in traditionally male-dominated fields (e.g., the pure sciences or mathematics) or from assuming leadership positions. However, offsetting this is the probability that predominantly male or mixed colleges are more likely to offer the curriculum necessary to enter an atypical occupation. Given these two opposing effects, one cannot hypothesize with certainty the direction of the relationship between the sex-composition of the college attended and the sex-label of the expected occupation.

The empirical results indicate that sex composition of the college attended was related to the choice of an atypical occupation for both whites and blacks (Table 4.3). However, only among white women was attendance at either a predominantly men's or women's college associated with an above average probability of aspiring to an atypical occupation. For blacks, attending a female college was correlated with a lower probability of choosing an atypical occupation.

Of course, the direction of causation cannot be inferred with certainty. Young women who attend male colleges may, even before entering, be relatively unconstrained by sex stereotypes and

Table 4.3 Unadjusted and Adjusted[a] Percentages of Young Women Choosing an Atypical Occupation, by Selected Measures of Experience, Race, and Educational Expectations: Multiple Classification Analysis[b]

Selected characteristics	Number of respondents	Unadjusted percent	Adjusted percent[a]	F-ratio
	White college[c]			
Educational level and sex composition of college student body				2.54**
Not yet in college in 1972	218	19.2	20.5	
In college by 1972 and:				
Females less than 31 percent of student body	66	33.0	33.4	
Females 31 to 60 percent of student body	457	27.8	26.0	
Females more than 60 percent of student body	69	33.5	33.0	
Nursing schools	29	2.5	11.7	
Not ascertainable	38	16.6	21.5	
Number and types of occupations, 1968 to 1973				3.97***
No work experience	28	3.8	13.1	
1 or 2 different occupations and:				
Worked in atypical occupation	28	32.6	34.2	
Other	208	13.4	14.5	
3 or 4 different occupations and:				
Worked in atypical occupation	103	31.4	30.4	
Other	196	22.9	21.7	
5 or 6 different occupations and:				
Worked in atypical occupation	103	32.6	30.3	
Other	82	30.3	31.4	
7 or more different occupations	79	36.0	34.9	
Not ascertainable	50	34.1	34.4	
Age in 1973				5.11***
19 to 22	337	25.1	22.7	
23 to 25	281	21.0	21.4	
26 to 29	259	28.8	31.7	
Grand mean	877	24.9	24.9	3.38***
R^2 (adjusted)				.109

(Table continued on next page.)

Table 4.3 Continued

Selected characteristics	Number of respondents	Unadjusted percent	Adjusted percent[a]	F-ratio
	Black college[c]			
Educational level and sex composition of college student body				2.70**
Not yet in college in 1972	144	15.0	16.3	
In college by 1972 and:				
Females less than 61 percent of student body	139	28.3	28.2	
Females more than 60 percent of student body	38	20.8	15.5	
Not ascertainable or nursing schools	18	e	e	
Number of occupations held, 1968 to 1973				2.11**
Never worked	10	e	e	
1 or 2 different occupations	81	14.6	15.1	
3 different occupations	63	29.4	26.0	
4 different occupations	68	16.7	16.5	
5 different occupations	58	31.9	35.2	
6 or more different occupations	45	22.6	23.2	
Not ascertainable	14	e	e	
Age in 1973				1.88
19 to 22	174	26.1	25.9	
23 to 25	78	22.2	19.3	
26 to 29	87	14.3	16.6	
Grand mean	339	21.9	21.9	1.86***
R^2 (adjusted)				.073
	White noncollege[c]			
Highest grade of schooling completed				4.03**
0 to 9	41	8.1	4.2	
10 to 11	105	22.4	24.0	
12	361	19.2	19.3	
Number and type[d] of occupations, 1968 to 1973				1.86*
No work experience	33	10.0	10.1	
1 to 3 different occupations and:				
Worked in atypical occupation	54	18.8	19.6	
Other	245	16.5	16.8	
4 to 5 different occupations and:				
Worked in atypical occupation	49	26.3	26.0	
Other	64	20.3	19.7	
6 or more different occupations and:				
Worked in atypical occupation	26	34.2	32.1	
Other	16	e	e	
Not ascertainable	20	e	e	
Grand mean	507	19.0	19.0	1.69**
R^2 (adjusted)				.041

a Percentages adjusted for the effects of all explanatory variables shown in Tables 4.2, 4.3, and 4.4. Variables presented in Tables 4.2, 4.3, and 4.4 represent the total model.

b Universe consists of respondents interviewed in 1973 and who planned to be working at age 35.

c "College" refers to those respondents who had completed at least one year of college, who were attending college, or who expected to attend college. "Noncollege" refers to those who had twelve years of education or less and who did not expect to attend college.

d To be classified as "Worked in atypical occupation" a respondent must have worked in an atypical occupation different from the occupation to which she aspires. Therefore, "Other" categories include those who have never worked in an atypical occupation and those whose only experience in an atypical occupation is in the occupation desired for age 35. See footnote 17, page 126.

e Percentages not shown where base represents less than 25 respondents.

* Significant at the 10 percent level.

** Significant at the 5 percent level.

*** Significant at the 1 percent level.

comfortable in social or work situations where men are a majority. Furthermore, the choice of a predominantly male or mixed college may have been the result of a previous occupational decision which required a curriculum not available at a female college. In a similar vein, young women who attend female colleges may, prior to entrance, believe that attendance at such a college is important because of the "constraining" influence introduced by the presence of men in more mixed institutions.

As noted earlier, for noncollege women it was hypothesized that no monotonic relationship would exist between years of schooling and choice of an atypical occupation.[15] Those male and female occupations open to individuals at the high school level differ more in the type than in the amount of training required for entrance. The empirical results confirm this hypothesis: only those women with 10 to 11 years of education completed had a higher than average probability of anticipating a typically male occupation for the future.

In addition to educational experiences, the number and types of occupations a young woman has held may serve to broaden the range of occupations which she considers potentially desirable to enter. Previous research has indicated that the greater the number of different occupations a young woman has held, the higher the likelihood that she will be interested in entering an atypical occupation in the future.[16] In this model we have included a variable which represents previous experience not only in a variety of occupations but also previous experience in atypical occupations specifically.[17]

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[15] A hypothesis regarding the relationship between schooling and the typicality of the expected occupation could be tested only for the noncollege women. Given the age of our sample in 1973 (19 to 29), many respondents may still be attending college and highest grade completed does not necessarily represent the level of schooling the respondents will ultimately attain. However, the noncollege white goup seems to have completed their schooling; in 1973, only two respondents in this sample were still enrolled in school. A further argument against the use of highest grade completed for the college universe is the fact that attendance in graduate school is probably the result rather than the cause of choosing an atypical career.

[16] See Harmon (1970); Almquist and Angrist (1971); and Almquist (1974).

[17] For the respondent to be coded as having held an atypical job, she must have been in an atypical occupation which is different from that anticipated for age 35. This procedure was followed so that we would avoid using the result of an earlier decision to work in a typically male occupation as the predictor of a choice for the future.

For white college women, this measure of exposure to the labor market proved to be a powerful influence on the likelihood of expecting to enter a male occupation (Table 4.3). Those women who had prior experience in atypical occupations had a higher than average probability of expecting to be in an atypical occupation in the future. Moreover, the probability of choosing an atypical occupation was higher, the greater the number of occupations previously held. In contrast, among black college women, although the number of occupations previously held was related to occupational expectations, this relationship was not monotonic.[18]

Among white noncollege women, exposure to a variety of occupations was weakly related to the expectation of being in a typically male occupation. Nevertheless, the results were in the hypothesized direction. Holding constant the number of occupations previously held, the women who had had experience in an atypical occupation were systematically more likely to desire an atypical occupation than those without such experience. Furthermore, among the women who previously had held at least one atypical job, the greater the variety of occupations experienced, the higher the probability of anticipating an atypical occupation at age 35.

Potential Labor Market Involvement

To estimate the relationship between commitment to the labor market and the expectation of holding a typically male occupation at age 35, several variables were employed. One is a direct measure of the women's beliefs regarding their own future labor force involvement. Two other variables--marital status and present and expected family size--also capture the likelihood that the women will participate extensively in the labor force. It is important to recall at this point that a positive relationship between anticipated future labor market involvement and the expectation of entering an atypical occupation was hypothesized to exist only for college women.

The direct measure of a woman's commitment to employment is a variable which represents the consistency in all six interviews of the respondent's expectation to be working at age 35. This variable proved to be insignificant in each of the three race/education groupings (Table 4.4).

Results of the variable reflecting number of children currently in the household and childbearing expectations are particularly

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[18] When a measure of both the number and the type of past occupations analogous to that used in the white college women's model was included in the black college women's equation, it proved to be insignificant.

Table 4.4 Unadjusted and Adjusted[a] Percentages of Young Women Choosing an Atypical Occupation by Selected Measures of Potential Labor Market Involvement, Race, and Educational Expectations: Multiple Classification Analysis[b]

Selected characteristics	Number of respondents	Unadjusted percent	Adjusted percent[a]	F-ratio
	White college[c]			
Number of times reported expectation of working at age 35[d]				1.78*
1	57	16.3	16.5	
2	114	16.3	21.2	
3	124	33.7	33.1	
4	148	27.9	26.9	
5	204	22.7	22.7	
6	217	26.5	24.5	
Not ascertainable	13	e	e	
Marital status				2.76*
Married, spouse present	495	22.2	25.6	
Separated, divorced, widowed[f]	58	34.7	35.9	
Never married	324	27.3	22.2	
Childbearing expectations and number of children				5.95***
No children in household and:				
No children expected	78	40.9	39.0	
More children expected	450	26.6	27.0	
1 child in household and:				
No more children expected	42	41.4	38.4	
More children expected	129	16.2	17.3	
2 children in household and:				
No more children expected	83	15.5	16.3	
More children expected	38	11.2	7.0	
3 or more children in household	41	8.0	8.0	
Not ascertainable	16	e	e	
Grand mean	877	24.9	24.9	3.38***
R^2 (adjusted)				.109
	Black college[c]			
Number of times reported expectation of working at age 35[d]				0.39
1 or 2 interviews	24	e	e	
3 or 4 interviews	64	25.0	25.7	
5 or 6 interviews	249	21.5	21.1	
Not ascertainable	2	e	e	
Marital status				1.09
Married, spouse present	133	16.1	18.2	
Separated, divorced, widowed[f]	40	20.7	25.3	
Never married	166	27.7	24.5	
Childbearing expectations and number of children				1.21
No more children expected and:				
Fewer than 2 children in household	46	12.9	13.9	
2 or more children in household	54	15.5	19.0	
More children expected and:				
No children in household	149	27.8	24.7	
1 child in household	57	18.5	18.8	
2 or more children in household	28	25.5	31.7	
Not ascertainable	5	e	e	
Grand mean	339	21.9	21.9	1.86***
R^2 (adjusted)				.073

(Table continued on next page.)

Table 4.4 Continued

Selected characteristics	Number of respondents	Unadjusted percent	Adjusted percent[a]	F-ratio
	White noncollege[c]			
Number of times reported expectation of working at age 35[d]				0.89
1	50	13.1	15.2	
2	81	18.7	18.1	
3	89	18.4	15.3	
4	82	20.1	20.7	
5	100	18.1	19.1	
6	102	20.9	21.6	
Not ascertainable	3	e	e	
Marital status and age at first marriage				3.20**
Married, spouse present:				
First married before age 21	314	16.0	16.6	
First married, age 21 to 29	57	20.2	23.1	
Separated, divorced, widowed[f]	66	25.9	28.2	
Never married	60	20.5	12.2	
Not ascertainable	10	e	e	
Childbearing expectations and number of children				1.34
No more children expected and:				
No children in household	29	23.7	25.6	
1 child in household	35	25.6	23.5	
2 children in household	114	17.6	17.3	
3 or more children in household	61	19.3	20.2	
More children expected and:				
No children in household	97	26.1	26.0	
1 child in household	108	11.6	11.6	
2 or more children in household	59	16.1	16.0	
Not ascertainable	4	e	e	
Grand mean	507	19.0	19.0	1.69**
R^2 (adjusted)				.041

[a] Percentages adjusted for the effects of all explanatory variables shown in Tables 4.2, 4.3, and 4.4. Variables presented in Tables 4.2, 4.3, and 4.4 represent the total model.

[b] Universe consists of respondents interviewed in 1973 and who planned to be working at age 35.

[c] "College" refers to those respondents who had completed at least one year of college, who were attending college, or who expected to attend college. "Noncollege" refers to those who had 12 years of education or less and who did not expect to attend college.

[d] For respondents who were interviewed at all six interview dates, variable represents the actual number of times the respondent reported that she planned to be working at age 35. To assign those interviewed only five times a value, the number of times the respondent reported work intentions for age 35 was multiplied by 1.20 and rounded to the nearest integer.

[e] Percentages not shown when base represents less than 25 respondents.

[f] Includes married, spouse absent.

* Significant at the 10 percent level.

** Significant at the 5 percent level.

*** Significant at the 1 percent level.

interesting. As expected, white college women who had either no children or only one child and who expected no additional children had a higher than average probability of choosing an atypical occupation for age 35. Furthermore, regardless of the current family size, those who anticipated no additional children were more likely also to expect to be in a male occupation than those women who anticipated having additional children.

However, among black college women family size did not appear to influence occupational choice. This suggests that, unlike their white counterparts, black women do not perceive a trade-off between time commitments to a family and time commitments to the labor force.

Marital status had little or no relationship to occupational aspirations among either racial group of college women. Thus it appears that it is the presence of children (and there only among white women) and not marriage per se which has a negative effect on the probability of selecting a typically male occupation.

In contrast, marital status was a significant factor influencing the probability of noncollege white women entering a typically male occupation. While the direction of causation ought not to be inferred, it is intriguing to find that the women who had married relatively late or who were divorced, widowed or separated at the interview date had a higher than average probability of expecting to be in a typically male occupation.

Comparison of Race/Education Groups

The empirical models presented in the previous section indicate that the determinants of expectations regarding employment in a typically male, or a typically female, occupation vary across race and educational groupings. No one factor, or set of factors, appeared to be systematically related to the occupational aspirations of all women. Hence, one implication of these results is that demographic changes--such as higher divorce rates or smaller family sizes--will not be similarly associated with occupational choice for different race and educational groups. A second implication of our findings is that if occupational integration is a social goal, then policies formulated to affect supply-side factors must take into consideration differences among women in racial characteristics and in educational levels.

The racial variations in factors influencing occupational expectations are not surprising. The two racial groups experienced different social and familial environments when they were young. It is also likely that some of the variations are attributable to historical patterns of occupational segregation by race. The number and types of occupations historically open to black college-educated women may differ from those historically open to their white counterparts. Hence, while the dependent variable may have categorized accurately occupations which are typical and atypical for white women, it may be a less accurate measure of occupations that are typical or atypical for black women.[19]

Likewise, the variations found between white college and noncollege women are not surprising. It was noted at the outset that many of the atypical occupations open to college women require postbacculaureate training and therefore would be attractive only to those women who anticipate extended working careers. In contrast, atypical occupations available to noncollege women do not necessarily involve greater investment in human capital and therefore more extensive participation in the labor force than typical occupations. As a result, it was expected that, for this group, factors reflecting the possibility of a strong commitment to the labor market (such as the expectation of a small family size) would not be related empirically to the choice of an atypical occupation. The results, which confirm our expectations, illustrate the need for further research on the process by which occupational choices are made by noncollege women. By implication, the results also suggest the potential for programs aimed at reducing occupational segregation by reorienting women's training and education at the high school level.

Finally, the results indicate that a young woman's family background is, at best, only weakly associated with occupational choice. Although the data available give a very incomplete indication of the childhood environment of the women, the findings suggest that one need not be "deterministic" about the possibilities for increasing occupational integration. A young woman's choice between a typical or an atypical occupation is not determined solely by her childhood environment; educational and labor market experiences later in life also have an important impact.[20]

OCCUPATIONAL PREFERENCES AND OCCUPATIONAL OUTLOOK

In assessing the probable success of young women in finding work in their preferred fields, it is useful to examine the growth prospects of the occupations which were frequently mentioned as desired occupations for age 35. Clearly, young women who are planning careers in fields which are growing slowly and where competition is keen may be frustrated in achieving their career goals, even with the requisite education and training. Among such women who drop out of the labor force, subsequent reentry may require retraining or education for another career.

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[19] Black women are underrepresented in some typically female occupations and overrepresented in others. For example, while black women were 12 percent of the female labor force in the 1970 census, they comprised only 3 percent of the female secretaries and 8 percent of the female nurses (U.S. Department of Commerce, 1973.)

[20] Of course, we cannot discard the possibility that these later experiences are associated with factors in the childhood environment which we do not measure. For example, certain women may be predisposed because of attitudes learned in childhood to acquire experience in atypical occupations or to work at a greater number of occupations.

Table 4.5 shows the occupations mentioned in 1968 and 1973 by young women who expect to be working at age 35.[21] The results suggest that if young women are able to realize their occupational ambitions for age 35, they will still be concentrated in a relatively small number of occupations. Among white women who have attended or plan to attend college, 60 percent want employment in only three general areas: teaching, health services, and clerical work. Among women with no college ambitions, one in three expects to be a clerical worker.

Occupational projections suggest that many of the fields in which women have traditionally been a majority will have a high or moderate growth rate. As Table 4.6 indicates, most occupations in the health field are expected to have excellent growth prospects. Likewise, rapid growth for workers in clerical occupations was forecast in 1973, and secretaries, in particular, were projected to have excellent chances for employment throughout the 1970's and early 1980's. Hairdressers are expected to benefit both from generally increased incomes and the rising labor force participation of women and, hence, to maintain a growth rate well above average. These three fields, by themselves, account for about two-thirds of the responses of the young women in the noncollege sample.

For young women expecting to go to college, the future employment picture is mixed. Particularly important for college women is the expected decrease in the number of openings for teachers. In 1968, 1973, and 1974, the Department of Labor consistently projected that teaching, at both primary and secondary levels, would at best be a very slow growth occupation. Table 4.5 does indicate a concurrent decline in the percentage of our sample who expect to be teachers. In 1968, 47 percent of the whites who planned to go to college and expected to be employed at age 35 planned a teaching career; in 1973 this percentage had dropped by 16 points. However, even with such a decline in the percentage of women planning teaching careers, 31 percent of the whites and 23 percent of the blacks were still planning

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[21] Related occupations are grouped together. For example, the category "teachers" includes the following: elementary and secondary school teachers, sports instructors and officials, musicians and music teachers, dancers and dancing teachers, and artists and art teachers.

Table 4.5 Occupational Expectations for Age 35, as Reported in 1968 and 1973, by Educational Expectations[a] and Race

(Percentage distributions)

Occupational expectation	1968		1973	
	Whites	Blacks	Whites	Blacks
	Noncollege[b]			
Number of respondents	443	358	507	302
Total percent	100	100	100	100
Teachers	3	3	4	5
Health workers	13	26	12	28
Registered nurses, technicians	7	11	5	16
Practical nurses, attendants	6	15	7	12
Clerical	35	35	38	32
Secretaries	14	11	18	10
Hairdressers	18	4	12	2
All others	31	32	35	33
	College[b]			
Number of respondents	448	279	877	339
Total percent	100	100	100	100
Teachers	47	35	31	23
Health workers	14	22	19	22
Registered nurses, technicians	10	12	15	16
Practical nurses, attendants	1	4	2	5
Physicians, pharmacists	3	7	1	2
Clerical	8	25	13	15
Secretaries	6	18	6	8
Social workers	3	5	5	5
Psychologists	1	1	2	1
Lawyers	2	0	1	1
Hairdressers	1	1	1	3
Accountants	1	0	2	1
Managers	2	1	3	3
All others	22	9	24	25

a Sample size in 1968 differs from that in 1973 because each constitutes an independent cross-section of the respondents. The universe for each year consists of black and white women who answered in that year that they planned to be working at age 35 and named the occupation at which they expected to work.

b "Noncollege" refers to those respondents who have completed 12 years of school or less and say that they do not expect to go to college. "College" refers to those respondents who have at least one year of college, who are attending college or who indicate that they expect to go to college.

Table 4.6 Occupational Projections for Occupations Expected at Age 35, by Year in Which Projection was Made

1968-1969[a]	1972-1973[a]	1974[a]
	High growth[b]	
Health professions: Registered nurses Health technologists and technicians Practical nurses Health aides, expect nurses (nurses, aides orderlies) *Physicians *Veterinarians *Psychologists[e] Social workers *Engineering and science technicians *College and university teachers[e] *Accountants Stenographers Hairdressers	Health professions: Registered nurses Health technologists and technicians Practical nurses Health aides, except nurses (nurses aides, orderlies) *Physicians *Veterinarians *Psychologists[e] Social workers *Engineering and science technicians *Accountants Hairdressers Secretaries Clerical workers (all)	Health professions: Registered nurses Health technologists and technicians Practical nurses Health aides, except nurses (nurses aides, orderlies) *Physicians *Veterinarians[d] *Psychologists[e] *Lawyers Social workers *Engineering and science technicians *Police and detectives *Professional and technical workers (n.e.c.) Secretaries Clerical workers (all)
	Moderate growth[c]	
*Lawyers *Pharmacists *Managerial occupations *Police and detectives *Designers *Real estate agents and brokers *Writing professions Clerical workers (all)	*Lawyers *Pharmacists *Managerial occupations *Police and detectives *Designers *Real estate agents and brokers *Writing professions *College university teachers[e]	*Accountants *Pharmacists *Managerial occupations *Designers *Real estate agents and brokers *Writing professions Hairdressers
	Slow growth[d]	
Prekindergarten teachers Elementary school teachers High school teachers *Farmers and farm managers *Operatives (all)	Prekindergarten teachers Elementary school teachers High school teachers *Farmers and farm managers *Operatives (all)	Prekindergarten teachers Elementary school teachers High school teachers *Farmers and farm managers *Operatives (all) *College and university teachers[e]

Sources: U.S. Department of Labor, Bureau of Labor Statistics, Occupational Outlook Handbook, 1968-69; 1972-73; and 1974-75. Max L. Carey, "Revised Occupational Projections to 1985" Monthly Labor Review (November 1976): 10-22.

[a] Projections for 1968-1969 usually concern the period until the mid-1970's. The projections for 1972-1973 extend to the end of the decade; those for 1974 are for 1974 to 1985.

[b] Includes occupations in which employment is expected to increase by 30.0 percent or more with job opportunities "excellent" or "very good."

[c] Includes occupations in which employment is expected to increase between 15.0 and 29.9 percent with job opportunities "good or favorable."

[d] Includes occupations in which employment is expected to increase not more than 14.9 percent (may also experience decline) with job opportunities "competitive."

[e] With Ph.D. only.

* Atypical occupation for women.

to teach in 1973. Clearly, there are lags in the adjustment to the poor occupational outlook for teachers, and the oversupply of teachers will probably continue.

Those occupations for college graduates that are expected to have excellent employment opportunities, for the most part, were not mentioned significantly more often by the 1973 sample than in the 1968 sample. For example, the percentage expecting to be employed as social workers, psychologists, or accountants was not significantly higher in 1973 than in 1968. The one possible exception is a slight increase in the percentage of white college women who foresaw working in the health field. This increase is largely the result of the more frequent choice of work as a registered nurse.

Table 4.7 shows the distributions among specific atypical occupations of respondents who expected to be in stereotypically male occupations at age 35. These data show rather dramatically that the range of occupational choice is very narrow even among those young women who plan to enter an atypical occupation. Of the more than 200 stereotypically male occupations, only 28 were mentioned by a noncollege respondent in 1973 and only 7 were chosen by 5 or more respondents.

In particular, women evinced almost no interest in highly skilled blue collar jobs. Only two respondents mentioned employment in one of the skilled crafts; only four aspired to positions as foremen. In contrast, operative positions were a significant portion of the atypical occupations mentioned for both races. Approximately two-thirds of the blacks and one-fifth of the whites in the noncollege sample who wanted an atypical occupation are recorded as expecting to work as operatives, n.e.c.

Moreover those atypical occupations mentioned by noncollege young women are no more likely to experience rapid growth than are the typical occupations. Of the stereotypically male occupations mentioned by noncollege women, only accounting and work as a professional or technical worker, n.e.c., were projected to be high growth occupations in either 1973 or 1974. Furthermore, operative positions were expected to have a slow growth rate. This fact could have a particularly heavy impact on black women.

Among the college women, the range of atypical occupations mentioned by five or more women was broader. Nevertheless, in 1973 only three respondents expected to be engineers, one expected to be a pilot, and only four expected to be architects. However, in 1973 interest was evinced in several occupations which had not been listed by five or more women in 1968. For example, in 1973, of the black college women who expected to be working in an atypical occupation at age 35, 6 percent indicated they expected to be members of the police force, and 5 percent indicated they expected to be accountants.

Table 4.7 Atypical Occupational Aspirations for Age 35, Reported in 1968 and 1973, by Educational Expectations and Race[a]

(Percentage distributions)

Desired occupation	1968		1973	
	Whites	Blacks	Whites	Blacks
	Noncollege[b]			
Number of respondents	59	38	95	38
Total percent	100	100	100	100
Accountants	c	c	6	0
Designers	6	2	0	0
Professional, technical and kindred workers (n.e.c.)	13	5	5	3
Managers, officials, and proprietors (n.e.c.)	11	16	30	7
Farmers and farm managers	6	2		
Real estate agents	c	c	0	0
Operatives (n.e.c.)	30	63	22	60
All other	35	12	30	30
	College[b]			
Number of respondents	102	39	220	72
Total percent	100	100	100	100
Accountants	c	c	9	5
Authors	5	2	3	3
College and university professors	9	0	10	5
Designers	6	3	2	6
Lawyers and judges	7	2	4	3
Physicians	14	44	5	8
Psychologists	4	5	8	6
Sports instructors	6	12	5	2
Technicians, other engineering and physical sciences	4	2	c	c
Veterinarians	7	0	c	c
Professional, technical and kindred workers (n.e.c.)	7	6	12	23
Farmers and farm managers	c	c	3	0
Managers, officials and proprietors (n.e.c.)	8	10	13	14
Real estate agents	c	c	4	1
Operatives (n.e.c.)	c	c	1	2
Police	c	c	2	6
All other	24	15	20	17

[a] The universe for each year consists of black and white women who answered in that year that they planned to be working at age 35 and named the occupation at which they expected to work.

[b] "Noncollege" refers to those respondents with less than 13 years of schooling, who are not presently attending college, and who do not expect to go to college. "College" refers to those respondents who have at least one year of college, who are attending college, or who indicate that they expect to go to college.

[c] Percentages calculated only for those occupations which five or more respondents mentioned as their occupational choice for age 35 at the relevant interview date. Those mentioned by fewer than five persons are included in the "all other" category.

For the college women, several of the atypical professions mentioned--e.g., accountants, physicians, and veterinarians--were projected in 1973 to be rapidly expanding. However, the proportion of young women expecting to work as physicians or veterinarians declined between 1968 and 1973, while a larger percentage indicated a desire to be in some fields, such as management or college teaching, which should have only moderate or slow increases.[22]

In general, in spite of the broad range of atypical occupations which could have been mentioned, the occupational expectations of young women who anticipated being in a stereotypically male occupation were limited. Unfortunately, too, the demand for several of the occupations mentioned is expected to be below average.

SUMMARY AND CONCLUSIONS

This chapter has analyzed the factors associated with a young woman's expectation of being in an occupation at age 35 that is atypical for women. It has been found that the factors affecting expectations vary between the races and between women who are in college or expect to attend college and those with no college plans. For example, the presence or expectation of children negatively affected the likelihood that white college women would expect to be in a male occupation, but it had no significant effect on either black college women or white noncollege women.

The chapter has also shown that the number and types of occupations--regardless of their sex-typing--to which the women aspire is limited. Moreover, even though extensive publicity has been accorded women who have become (for example) truck drivers and telephone line repair workers, and even though there is a broad range of stereotypically male occupations from which young women might choose, they actually tend to mention relatively few occupations.

Thus it is clear that if young women are to move into all types of typically male occupations, affirmative action programs are not sufficient. It is necessary also to broaden young women's exposure to the full range of their employment opportunities.

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[22] Some of the decrease in women expecting to be physicians or veterinarians is probably the result of a readjustment of expectations which were initially unrealistic.

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GLOSSARY

AGE IN 1973

The respondent's age at her last birthday before January 1, 1973.

ATYPICAL

Term used to describe those occupations in which 38.1 percent or fewer of the incumbents in 1970 were female. (See SEX-TYPE OF OCCUPATION)

CHILDBEARING EXPECTATIONS

A dichotomous variable indicating whether in 1973 the respondent expects to bear more children. (Derived from items 100b, 101c, and 102c, 1973 questionnaire)

COLLEGE

A term used to describe those respondents who, at the applicable interview date, are enrolled in college, have completed at least one year of college, or report that they expect to attend college in the future.

EDUCATIONAL EXPECTATIONS

A dichotomous variable which indicates whether the respondent has attended or expects to attend college. (See COLLEGE and NONCOLLEGE)

HIGHEST GRADE COMPLETED

The highest year of "regular" school completed by the respondent--from 0 to 18--as of the survey week in 1973. "Regular" schools include graded public, private, and parochial elementary and secondary schools; colleges; universities; and professional schools.

NONCOLLEGE

A term used to describe those respondents who, at the applicable interview date, have no more than 12 years of schooling completed, are not enrolled in college, and report that they do not expect to attend college.

NUMBER OF CHILDREN

Number of respondent's sons and daughters under the age of 18 living in the household.

NUMBER OF OCCUPATIONS

The number of *different* three-digit Census occupational categories in which the respondent reported working between 1968 and 1973.

NUMBER OF SIBLINGS

The number of brothers and sisters of the respondent, as reported by the respondent in items 107a and 113 of the 1968 questionnaire.

NUMBER OF TIMES REPORTED EXPECTATION OF WORKING AT AGE 35

A continuous variable indicating the number of times in the yearly interviews the respondent indicated she expected to be working outside the home at age 35. In all interviews, respondents were asked what they planned to be doing at age 35. (See item 72a for 1968 and item 69 for 1973.) For respondents interviewed in all years, the variable represents the simple number of times out of the possible six that the respondent reported expectations of work outside the home for age 35. To assign respondents interviewed only five times a comparable value, the number of times the respondent reported work intentions for age 35 was multiplied by 1.20 and rounded to the nearest integer.

SEX-COMPOSITION OF COLLEGE STUDENT BODY

A categorical variable indicating, for those respondents who entered college before the 1972 interview, the percentage of women represented in the student body of the first college the respondent attended.

SEX-TYPE OF OCCUPATION

A dichotomous variable derived from the 1970 Census of Population data which compares the degree of representation of women in a three-digit occupation with their representation in the experienced civilian labor force. Those occupations in which women are overrepresented are termed "typical"; those in which female representation is less than their representation in the entire labor force are termed "atypical."

TYPE OF OCCUPATION

(See SEX-TYPE OF OCCUPATION)

TYPICAL

Term used to denote those occupations in which more than 38.1 percent of the incumbents in 1970 were female. (See SEX-TYPE OF OCCUPATION)

Table 4A.1 Unadjusted and Adjusted[a] Percentages of Black Noncollege Women[b] Choosing an Atypical Occupation: Multiple Classification Analysis

Characteristics	Number of respondents	Unadjusted percent	Adjusted percent[a]	F-ratio
Atypicality of mother's occupation[c]				2.37*
Did not live with mother	33	9.2	2.1	
Mother not employed	131	13.5	13.7	
Mother employed:				
In atypical occupation	25	27.6	30.9	
In typical occupation	106	11.0	12.1	
Not ascertainable	7	d	d	
Occupation of male head of household[c]				4.61***
Professional, technical, or managerial	43	18.2	18.3	
Other	146	11.1	11.6	
Lived with mother only	78	8.9	6.0	
Not ascertainable or occupation not reported	35	26.1	30.6	
Number of siblings				4.72***
2 or less	60	24.3	26.0	
3 or 4	61	9.8	8.4	
5 or more	178	9.9	9.8	
Not ascertainable	3	d	d	
Highest grade of schooling completed				0.72
0 to 9	59	12.5	16.1	
10 to 11	91	8.8	9.9	
12	152	15.6	13.5	
Number and type of occupations, 1968 to 1973				0.98
Never worked	19	d	d	
Worked in atypical occupation[e]				
1 to 3 different occupations	55	7.2	6.1	
4 to 5 different occupations	39	11.1	9.6	
Other[e]				
1 to 2 different occupations	75	15.8	16.1	
3 different occupations	38	9.7	11.4	
4 to 5 different occupations	38	14.5	18.2	
6 or more different occupations	25	20.0	16.1	
Not ascertainable	13	d	d	
Age in 1973				0.04
19 to 22	141	13.7	12.4	
23 to 25	83	12.1	13.6	
26 to 29	78	12.7	13.2	
Number of times reported expectation of working at age 35[f]				2.08*
1 to 3	57	13.4	12.9	
4	41	18.1	19.2	
5	90	11.1	9.0	
6	113	11.6	13.1	
Not ascertainable	1	d	d	
Marital status				0.02
Married, spouse present	107	12.6	12.6	
Separated, divorced, widowed[g]	78	11.7	12.8	
Never married	117	14.2	13.4	
Childbearing expectations and number of children				2.38*
Less than 2 children				
No more children expected	82	5.7	8.0	
More children expected	136	18.9	18.5	
3 or more children	79	10.6	9.0	
Not ascertainable	5	d	d	
Grand mean	302	13.0	13.0	1.69**
R^2 (adjusted)				.064

(Table continued on next page.)

Table 4A.1 Continued

a Percentages adjusted for the effects of all explanatory variables.

b Sample consists of black respondents interviewed in 1973 who planned to be working at age 35, who had completed no more than 12 years of schooling and who did not expect to attend college.

c Refers to time when respondent was 14.

d Percentages not shown when base represents less than 25 respondents.

e To be included in the category "Worked in atypical occupation" the respondent must have worked in an occupation which was atypical and different from her desired occupation. Thus, the category "Other" includes both those who have never worked in an atypical occupation and those whose only experience in an atypical occupation is in the occupation chosen for age 35. See footnote 21, page 132.

f For respondents interviewed in all six years, the categories represent the actual number of times the respondent reported she expected to be working at age 35. To assign a value to those interviewed only five times, the number of times the respondent reported work intentions for age 35 was multiplied by 1.20 and rounded to the nearest integer.

g Includes married, spouse absent.

* Significant at the 10 percent level.

** Significant at the 5 percent level.

*** Significant at the 1 percent level.

Table 4A.2 Unadjusted and Adjusted[a] Percentages of Black College Women[b] Choosing an Atypical Occupation: Multiple Classification Analysis[c]

Characteristics	Number of respondents	Unadjusted percent	Adjusted percent[a]	F-ratio
Mother's education and type of occupation[d]				1.18
0 to 12 years of school and:				
Worked at atypical occupation	25	9.0	11.4	
Worked at typical occupation	125	21.3	22.5	
Did not work	107	19.4	18.7	
13 to 18 years of school	30	42.7	34.1	
Did not live with mother	31	28.3	29.2	
Not ascertainable or occupation not reported	21	e	e	
Occupation of male head of household[d]				0.22
Professional, technical or managerial	40	22.3	24.7	
Other	210	21.8	20.5	
Lived with mother only	68	21.3	24.1	
Not ascertainable or occupation not reported	21	e	e	
Number of siblings				2.48*
2 or fewer	89	33.9	31.5	
3 or 4	93	18.2	19.5	
5 or more	155	17.1	17.7	
Not ascertainable	2	e	e	
Educational level and sex composition of college student body				2.82**
Not yet in college in 1972	144	15.0	15.7	
In college in 1972 and:				
Females less than 61 percent of student body	139	28.3	28.6	
Females more than 60 percent of student body	38	20.8	16.6	
Not ascertainable or nursing schools	18	e	e	
Number and type[f] of occupations, 1968 to 1973				1.06
No work experience	10	e	e	
1 to 3 different occupations and:				
Worked in atypical occupation	33	16.0	18.8	
Other	111	22.8	20.5	
4 different occupations and:				
Worked in atypical occupation	28	15.8	19.1	
Other	40	17.8	16.0	
5 or more different occupations and:				
Worked in atypical occupation	57	31.3	33.4	
Other	46	22.9	21.7	
Not ascertainable	14	e	e	
Age in 1973				2.78
19 to 22	174	26.1	26.7	
23 to 25	78	22.2	20.1	
26 to 29	87	14.3	14.7	
Number of times reported expectation of working at age 35[g]				0.56
1 or 2 interviews	24	e	e	
3 or 4 interviews	64	25.0	26.2	
5 or 6 interviews	249	21.5	21.4	
Not ascertainable	2	e	e	
Marital status				1.14
Married, spouse present	133	16.1	18.4	
Separated, divorced, widowed[h]	40	20.7	28.1	
Never married	166	27.7	23.7	
Childbearing expectations and number of children				0.82
No more children expected and:				
Fewer than 2 children in household	46	12.9	16.7	
2 or more children in household	54	15.5	21.0	
More children expected and:				
No children in household	149	27.8	22.5	
1 child in household	57	18.5	19.0	
2 or more children in household	28	25.5	33.1	
Not ascertainable	5	e	e	
Grand mean	339	21.9	21.9	1.37*
R^2 (adjusted)				.035

(Table continued on next page.)

Table 4A.2 Continued

a Percentages adjusted for the effects of all explanatory variables.

b Sample consists of black respondents interviewed in 1973 who planned to be working at age 35, who had completed at least one year of college, who were attending college or who indicated that they expect to go to college.

c This is the same model as that for white college women (with the exception of a variable representing birthplace of parents) shown in the text (Tables 4.2 to 4.4). Due to sample size problems, categories may differ from those shown in the model for white college women.

d Refers to time when respondent was 14.

e Percentages shown when base represents less than 25 respondents.

f To be included in the category "Worked in atypical occupation" the respondent must have worked in an occupation which was atypical and different from her desired occupation. Thus, the category "Other" includes both those who have never worked in an atypical occupation and those whose only experience in an atypical occupation is in the occupation chosen for age 35. See footnote 17, page 126.

g For respondents interviewed in all six years, the categories represent the actual number of times the respondent reported she expected to be working at age 35. To assign a value to those interviewed only five times, the number of times the respondent reported work intentions for age 35 was multiplied by 1.20 and rounded to the nearest integer.

h Includes married, spouse absent.

* Significant at the 10 percent level.

** Significant at the 5 percent level.

Table 4A.3 Unadjusted and Adjusted[a] Percentages of White Noncollege Women[b] Choosing an Atypical Occupation: Multiple Classification Analysis[c]

Characteristics	Number of respondents	Unadjusted percent	Adjusted percent[a]	F-ratio
Mother's education and type of occupation[d]				0.85
0 to 12 years of school and:				
Worked at atypical occupation	45	18.4	18.7	
Worked at typical occupation	126	19.7	21.1	
Did not work	264	20.2	20.0	
13 to 18 years of school	21	e	e	
Did not live with mother	27	16.3	10.8	
Not ascertainable or occupation not reported	24	e	e	
Occupation of male head of household[d]				2.03
Professional, technical or managerial	118	24.7	24.7	
Other	312	18.5	18.2	
Lived with mother only	53	8.9	9.6	
Not ascertainable or occupation not reported	24	e	e	
Number of siblings				0.33
None	34	20.1	21.2	
1 or 2	175	17.3	17.7	
3 or 4	170	18.9	18.4	
5 or more	125	20.6	20.5	
Not ascertainable	3	e	e	
Birthplace of parents				0.44
One or both parents born in Latin America, Central, Southern, or Eastern Europe	17	e	e	
Neither parent born in Latin American, Central, Southern, or Eastern Europe	469	19.0	18.8	
Did not live with either parent	21	e	e	
Highest grade of schooling completed				4.19**
0 to 9	41	8.1	3.7	
10 or 11	105	22.4	24.1	
12	361	19.2	19.3	
Number and type[f] of occupations, 1968 to 1973				2.02**
No work experience	33	10.0	8.2	
1 to 3 different occupations and:				
Worked in atypical occupation	54	18.8	20.6	
Other	245	16.5	16.8	
4 to 5 different occupations and:				
Worked in atypical occupation	49	26.3	25.9	
Other	64	20.3	20.2	
6 or more different occupations and:				
Worked in atypical occupation	26	34.2	33.2	
Other	16	e	e	
Not ascertainable	20	e	e	
Age in 1973				0.96
19 to 22	147	21.7	19.0	
23 to 25	152	14.8	15.6	
26 to 29	208	19.9	21.4	
Number of times reported expectation of working at age 35[g]				0.97
1	50	13.1	14.0	
2	81	18.7	18.7	
3	89	18.4	16.2	
4	82	20.1	19.9	
5	100	18.1	18.4	
6	102	20.9	22.3	
Not ascertainable	3	e	e	
Marital status				3.47**
Married, spouse present	381	17.4	18.6	
Separated, divorced, widowed[h]	66	25.9	28.3	
Never married	60	20.5	10.4	

(Table continued on next page.)

Table 4A.3 Continued

Characteristics	Number of respondents	Unadjusted percent	Adjusted percent[a]	F-ratio
Childbearing expectations and number of children				1.51
No more children expected and:				
No children in household	29	23.7	26.4	
1 child in household	35	25.6	23.0	
2 children in household	114	17.6	16.5	
3 or more children in household	61	19.3	17.9	
More children expected and:				
No children in household	97	26.1	27.8	
1 child in household	108	11.6	12.5	
2 or more children in household	59	16.1	15.6	
Not ascertainable	4	e	e	
Grand mean	507	19.0	19.0	1.27
R^2 (adjusted)				.021

a Percentages adjusted for the effects of all explanatory variables.

b Sample consists of white respondents interviewed in 1973 who planned to be working at age 35, who had completed no more than 12 years of schooling and who did not expect to attend college.

c This is the same model as that for white college women, shown in the text (Tables 4.2 to 4.4). Due to sample size problems, categories may differ from those shown for white college women.

d Refers to time when respondent was 14.

e Percentages not shown where base represents less than 25 respondents.

f To be included in the category "Worked in atypical occupation" the respondent must have worked in an occupation which was atypical and different from her desired occupation. Thus, the category "Other" includes both those who have never worked in an atypical occupation and those whose only experience in an atypical occupation is in the occupation chosen for age 35. See footnote 17, page 126.

g For respondents interviewed in all six years, the categories represent the actual number of times the respondent reported she expected to be working at age 35. To assign a value to those interviewed only five times, the number of times the respondent reported work intentions for age 35 was multiplied by 1.20 and rounded to the nearest integer.

h Includes married, spouse absent.

** Significant at the 5 percent level.

CHAPTER FIVE

INVESTMENTS IN HUMAN CAPITAL AND THE EARNINGS OF YOUNG WOMEN

David Shapiro and Timothy J. Carr*

This chapter examines the determinants of average hourly earnings of young women. The primary objective of the chapter is to analyze the impact of investments in human capital on hourly earnings, with particular focus on postschool investments in human capital. In addition, a comparable analysis will be made for young men, in order to examine differences in the wage structures by sex and the underlying sources of the wage gap between young men and young women.[1]

POSTSCHOOL INVESTMENTS IN HUMAN CAPITAL

According to the human capital model of the distribution of earnings,[2] investments in human capital (such as schooling and on-the-job training) enhance a worker's productivity, and hence, earnings. Considerable empirical evidence has consistently documented the theoretically expected association between wages and accumulated human capital. Recently, the process of investment in human capital by women over the life cycle has been subjected to considerable theoretical and empirical analysis.[3] In considering investments in human capital over the life cycle, a very important difference between women and men emerges: women often drop out of the labor force for extended periods of time, while the labor force participation of men (particularly married men) is consistently very high. The intermittent labor force participation of women is closely associated with the bearing and raising of children.[4]

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*The authors wish to thank Leyla V. Woods for her research assistance.

[1] The initial analysis uses data from the 1973 survey of young women. However, since the 1973 survey of young men was a telephone survey (and consequently subject to considerable measurement error on several key variables), the comparative analysis between women and men makes use of the 1971 survey of young men and the 1972 survey of young women (these two surveys took place closer in time than did the 1971 surveys of young men and women).

[2] For discussion of this model, see Becker (1964, 1967) and Mincer (1970, 1974).

[3] For example, see Mincer and Polachek (1974) and Sandell and Shapiro (1976).

The pattern of labor force participation of women (particularly married women) has two important implications for their human capital investment behavior. First, since women will spend less time over the life cycle engaged in work in the labor market, they will have less time to acquire on-the-job training than men of comparable age and schooling, and employers may also be more reluctant to provide such training. Second, returns (in the form of higher wage rates) to investments in human capital can only be received while the individual is at work; hence, prospective discontinuity in lifetime labor force experience will have the effect of lowering the returns from (and consequently lowering the incentive for) investments in on-the-job training.[5]

The preceding paragraph focuses on implications of the life-cycle human capital model with regard to sex differences in on-the-job training. However, the model also has implications regarding differences in investment behavior among women, for to the extent that there are substantial differences in lifetime labor force attachment among women, the human capital model implies that women with stronger labor force attachment will engage in postschool human capital investments more heavily than women with weaker labor force attachment. A further implication is that the timing of investments will also differ: investment profiles for women with greater commitment to work should be more similar to the monotonically declining investment profiles of men than those for women with weaker commitment to work.

Thus, in examining wage rates and human capital investments of young women and men, we may distinguish three groups: 1) women whose expected attachment to the labor force over the life cycle is weak; 2) women whose expected attachment is (relatively) strong; and 3) men, whose expected attachment is strongest. According to human capital theory, investments in on-the-job training[6] should be increasingly important as one moves across these groups. Differences in postschool investment behavior between the first two groups and differences in investment between the second and third groups will be examined separately below.

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[4] For evidence to this effect (based on data from the 1967 NLS of mature women), see Appendix A of Sandell and Shapiro (1976). In view of the secular increase in female labor force participation, the reduction of fertility rates in recent years, and the evidence presented in Chapter 3 of this volume, it seems most likely that time spent at home following the birth of the first child will be much shorter for the young women under consideration here.

[5] It has also been argued that prospective discontinuity of labor force experience affects the shape of the postschool investment profile of women--viz., while the investment profile for men is monotonically declining, the profile for married women with children is not; rather it tends to be higher in the postmaternal than in the premarental period (Mincer and Polachek, 1974). However, as noted by Sandell and Shapiro (1976), this hypothesis was not tested properly by Mincer and Polachek.

WAGE EQUATIONS FOR YOUNG WOMEN

In this section, wage structures of "weakly committed" and "strongly committed" young women are estimated. The primary focus here is on whether or not these empirical estimates are consistent with our hypothesis that investments in on-the-job training are greater for women with strong attachment to the labor force.

Specification

The basic equation to be estimated is:

$$\text{LNWAGE} = \alpha_0 + \alpha_1\text{SCHOOL} + \alpha_2\text{EXPER} + \alpha_3\text{TENURE} + \sum_{i=1}^{6} \alpha_{4i}Z_i.$$

where LNWAGE is the natural logarithm of the respondent's hourly wage rate; SCHOOL measures the number of years of school completed; EXPER measures the respondent's total years of experience in the labor market since she last attended school full time; TENURE measures the number of years that the respondent has held her current job; and Z_i represents a set of control variables: a continuous variable measuring ability (IQ), and separate dummy variables for workers whose wages are set by collective bargaining, and for those who reside in the South, reside in an SMSA, work in the public sector, and have health problems.[7]

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[6] The term "on-the-job training" is here used in the broadest sense. It refers to any formal or informal process of learning skills which enhances productivity (and hence wages) while one is employed on a given job. For a further discussion, see page 6 below.

[7] Alternative specifications of the wage equation were also estimated. First, we explicitly included a variable identifying those individuals who had completed formal on-the-job training relevant to their current jobs. This variable was not statistically significant and it is not included in the regressions reported below. Second, the regressions were estimated using quadratic specifications of the work experience variables. The quadratic specifications generally yielded a better fit, and are reported below. However, for illustrative purposes the discussion here focuses on the simple linear specification presented above.

The semilogarithmic specification of the wage equation guarantees that the predicted hourly rate of pay generated by the model will always take on a positive value. It also means that the coefficients may be interpreted as the percentage effects on the wage rate of unit of changes in the independent variables--i.e., completing an additional year of schooling, ceteris paribus, will result in an increase in the hourly wage rate of $100 \cdot \alpha_1$ percent.

The first three independent variables in the equation--schooling, total work experience, and current job tenure--are human capital variables, and their coefficients are expected to be positive. Total experience and job tenure represent periods during which postschool human capital investments will be made. Holding tenure on current job constant, the coefficient of total experience measures the return to general training; while the coefficient of tenure in this specification measures the return to firm-specific training.[8]

The life-cycle human capital model is implicitly concerned with investment in general training. Hence, in the context of the wage equations to be estimated here, the hypothesis that postschool investments will be greater among women with stronger expected lifetime labor force attachment may be seen as implying that the coefficient (α_2) of total experience will be greater among such women than among women with weaker labor force attachment.

Behaviorally, postschool investments in general human capital will be manifested largely through occupational choice. Occupations differ in the amount of on-the-job training required in order to reach full effectiveness. Human capital theory suggests that "high-training" occupations will be characterized by low wages in the initial phase of experience (while the worker is acquiring the necessary skills through on-the-job training), and increasing wages as experience (and the individual's capabilities to perform the job) increases. Consequently, experience-wage profiles will be steep for "high-training" occupations, and relatively flat for "low-training" occupations. Presumably, women with stronger expected lifetime labor force attachment will have greater incentive to invest in their general human capital by choosing "high-training" occupations. This greater investment, in turn, should be reflected in steeper experience-wage profiles--i.e., a larger coefficient of total experience, and a lower intercept term (α_0).

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[8] This interpretation of the total experience and tenure coefficients is identical to that in Sandell and Shapiro (1976). For a more rigorous theoretical justification of this interpretation, see Shapiro (1976). The concepts of general training and firm-specific training were first given prominent focus by Becker (1964). Most simply, "perfectly general" training is training which raises a worker's productivity equally at many firms; completely specific training raises a worker's productivity only with a single firm. Most types of real-world training involve both general and specific components; however, the mix of these components varies. For example, military training in electronics and a skilled-trades apprenticeship are two forms of (predominantly) general training; while learning the rules and regulations in a particular firm and training as an astronaut constitute primarily specific training. For a more thorough discussion of these two types of training and the financing of training, see Becker (1964).

Apart from the influence of schooling, total work experience, and tenure, several control variables, representing additional determinants of wage rates, are included in the wage equations. Ability, measured here by an intelligence quotient (IQ) score, has been shown to be an important independent factor influencing wages.[9] Since our empirical focus is on the experience-earnings profiles implied by the experience coefficients in the wage equations, controlling for ability is imperative to insure that the profiles are not simply reflecting ability differences between the strongly attached and weakly attached young women.

Considerable empirical evidence has been presented in the literature indicating that, other things being equal, wage rates are higher for workers whose wages are set by collective bargaining, who work in the public sector, and who reside in large urban areas. Similarly, wages tend to be lower, ceteris paribus, for workers who have health problems and who reside in the South.[10] Since the distributions of strongly and weakly attached women across these characteristics may differ, it is desirable to control explicitly for the effects of these factors. In brief, then, the control variables are introduced into the wage equations in order to prevent bias in the testing of our hypothesized relationships.

The array of variables just described exemplifies the advantages of using the National Longitudinal Surveys relative to other microdata sources for the empirical analysis of wage determination. A comparison with the work of Mincer (1974), a typical example of the use of U.S. Census (1/1000 sample) data for this purpose, is most instructive. First, Mincer was forced by data limitations to use an annual earnings measure as a dependent variable; such a variable is "an amalgam of labor-supply responses and human capital formation."[11] In this study we use a "purer" measure: an hourly rate of pay. Second, Mincer used a measure of "potential" experience obtained by the formula

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[10] A large number of studies provide evidence of wage differentials associated with one or more of these five factors; the interested reader may wish to consult Oaxaca (1973) for a single study that considers all of these factors (as well as several others) simultaneously.

[11] Blinder (1976), p. 17.

experience = age - highest grade completed - 5.

This proxy is clearly untenable for samples (such as young women) characterized by less-than-continuous labor force participation.[12] Again, the NLS permit us to ascertain the actual labor market experience of our sample with tolerable accuracy.[13] Finally, we avail ourselves of information on "ability" (IQ), collective bargaining coverage, tenure on current job, and health status which is not generally available in the 1/1000 Census sample or other microdata sets.

Stratification

Thus far, the discussion has focused on the distinction between women whose expected attachment to the labor force over the life cycle is weak and women whose expected attachment is strong. This distinction will be used to stratify the sample for purposes of estimating wage equations. The critical operational question, then, is by what criterion will women be judged to be weakly or strongly committed to the labor force?

There are a number of criteria which might be used in this regard. We have made use of a woman's future plans as an indicator of the strength of her attachment to the labor force.[14] Respondents were asked in 1968 what they would like to be doing at age 35. Presumably, those who stated that they would like to be working in the labor market are those with a greater attachment to the labor force; while those who planned to be housewives/mothers and those who responded "don't know" have weak attachment to the work force.

Table 5.1 shows mean values for selected variables of interest for the sample of young women analyzed below, separately by plans for age 35 and by race. It is apparent from the table that there are no large

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[12] Ibid., pp. 13-14.

[13] A potential experience measure will be used in the case of young men, examined below.

[14] Other criteria which were tested included expected number of children and Specific Vocational Preparation (SVP) score of first postschool job (SVP score measures the time required to reach proficiency in a particular vocation). Insufficient variation in the former and reduced sample sizes using the latter resulted in rejection of these criteria as stratification variables.

Table 5.1 Selected Variable Means for Young Women, by Race and Plans to Work at Age 35[a]

Variable[b]	WHITES		BLACKS	
	Plan to work	No work plans	Plan to work	No work plans
Highest grade completed	13.18	13.11	12.58	12.76
Total work experience (years)	4.46	4.31	4.26	4.54
Potential work experience (years)	5.79	5.22	5.46	5.77
Tenure on current job (years)	2.17	2.10	2.26	2.06
Intelligence quotient	106.46	107.50	89.51	90.05
Age	24.61	23.83	24.33	24.52
Expected number of children	2.06	2.25	2.31	2.18
Number of respondents[c]	264 (205)	706 (463)	127 (114)	138 (118)

[a] The sample consists of women who were employed as wage and salary workers and were not enrolled in school full time as of the 1973 survey, and for whom the required data are ascertainable.

[b] All variables are defined in the Glossary.

[c] Numbers in parentheses refer to sizes of the samples used to calculate mean expected number of children (i.e., excluding those respondents for which such information was not ascertainable).

differences in variable means according to future plans. Thus, the future plans variable appears to be reasonably independent of these factors; that is, it is not serving simply as a proxy for some other (obvious) variable.

Empirical Estimates

In this section, we focus on wage equations estimated for out-of-school women who were employed as wage and salary workers in 1973. The hypothesis of interest here is that women who desire to work at age 35 will invest more heavily in on-the-job training, and consequently have steeper experience-wage profiles. In the context of the wage equation presented above, our hypothesis indicates that women who plan to work should have a larger coefficient for total work experience and a smaller intercept (constant) term.

The procedure used to test this hypothesis is as follows: for black and white women separately, we have estimated wage equations in which interaction terms (for total work experience, tenure, and the constant) are included to differentiate those who plan to work at age 35. Within each equation, then, the interaction terms allow for differences between those who plan to work and those who do not plan in terms of the coefficients of total work experience, tenure, and the constant.[15]

The empirical results pertinent to our principal hypothesis are presented in Table 5.2.[16] As noted above, we estimated the wage equations using quadratic specifications for both total experience and tenure.[17] These quadratic specifications make comparison of the "plans"

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[15] The interaction terms for tenure are included to see if investment in specific training is greater for women with stronger labor force attachment. An implicit assumption here is that the coefficients of the other variables in the wage equation do not differ by plans to work. A formal test indicated that this assumption is consistent with the data--i.e., when interaction terms were introduced for all variables in the wage equation, there was no pattern of significant differences by plans to work in the coefficients of schooling or in any of the control variables.

[16] The coefficients for the "no work plans" groups are taken directly from the corresponding wage equations (see Appendix Table 5A.1), while the coefficients for the "plan to work" groups are obtained for each variable by summing the "no work plans" coefficient and the corresponding interaction term coefficient. For a further discussion of this and similar econometric procedures, see Johnston (1972), pp. 176-186.

[17] One exception is in the specification of tenure in the equation for blacks. With the quadratic specification, both coefficients were

Table 5.2 Regression Coefficients Relating Ln Wage to Selected Variables, by Race and Plans to Work at Age 35[a]

Variable[b]	WHITES			BLACKS		
	Plan to work	No work plans	Significance level[c]	Plan to work	No work plans	Significance level[c]
Total work experience (years)	.0762	.0335	*	.0543	.0424	
Total work experience squared	-.0041	-.0014		-.0052	-.0039	
Tenure on current job (years)	.0652	.0831		.0470	.0303	
Tenure on current job squared	-.0041	-.0064		d	d	
Constant	3.5664	3.6720		3.6583	3.7340	
Number of respondents	264	706		127	138	

[a] The sample consists of women who were employed as wage and salary workers and were not enrolled in school full time as of the 1973 survey, and for whom the required data are ascertainable.

[b] All variables are defined in the Glossary.

[c] Significance level refers to whether or not the coefficients of a particular variable differ significantly according to plans to work.

[d] Not included in this equation.

* Significant at the 10 percent level.

and "no plans" groups a bit more complex than in the case of a linear specification, since there are two coefficients for each of the two work experience measures. With a quadratic specification, the coefficient of the linear term measures the initial steepness of the relationship in question, while the coefficient of the squared term reflects the rate at which the steepness changes as the independent variable increases.

The coefficients in Table 5.2 reveal that for both whites and blacks, the relationship between hourly wages and total work experience is initially steeper (significantly so for whites) for those who plan to work at age 35, as hypothesized. In addition, within each race group the intercept term is lower for the "plan to work" group (again, the difference is significant for whites). This evidence thus provides tentative support for the human capital hypothesis that women with stronger expected attachment to the labor force will invest more heavily in general on-the-job training. At the same time, however, the coefficients of the experience-squared terms indicate that the intially steeper experience-wage profiles for those who plan to work at age 35 flatten out more rapidly than the profiles for those with no work plans (although the latter effect is not statistically significant).

Figure 5.1 shows that this flattening out is not very consequential for the range of total work experience relevant to our inquiry. That is, Figure 5.1 shows experience-wage profiles for young white women according to whether or not they plan to be in the labor market at age 35. The profiles are drawn assuming 12 years of schooling, IQ of 100, zero tenure, residence in non-South SMSA, wages not set by collective bargaining, employed in the private sector, and no health problems.[18] As implied by human capital theory, the profile for those women with stronger expected lifetime attachment to the labor force begins at a lower point and then rises more rapidly than the profile for weakly attached women, reflecting investment in training via reduced wages initially and returns to investment in the form of more rapid growth in

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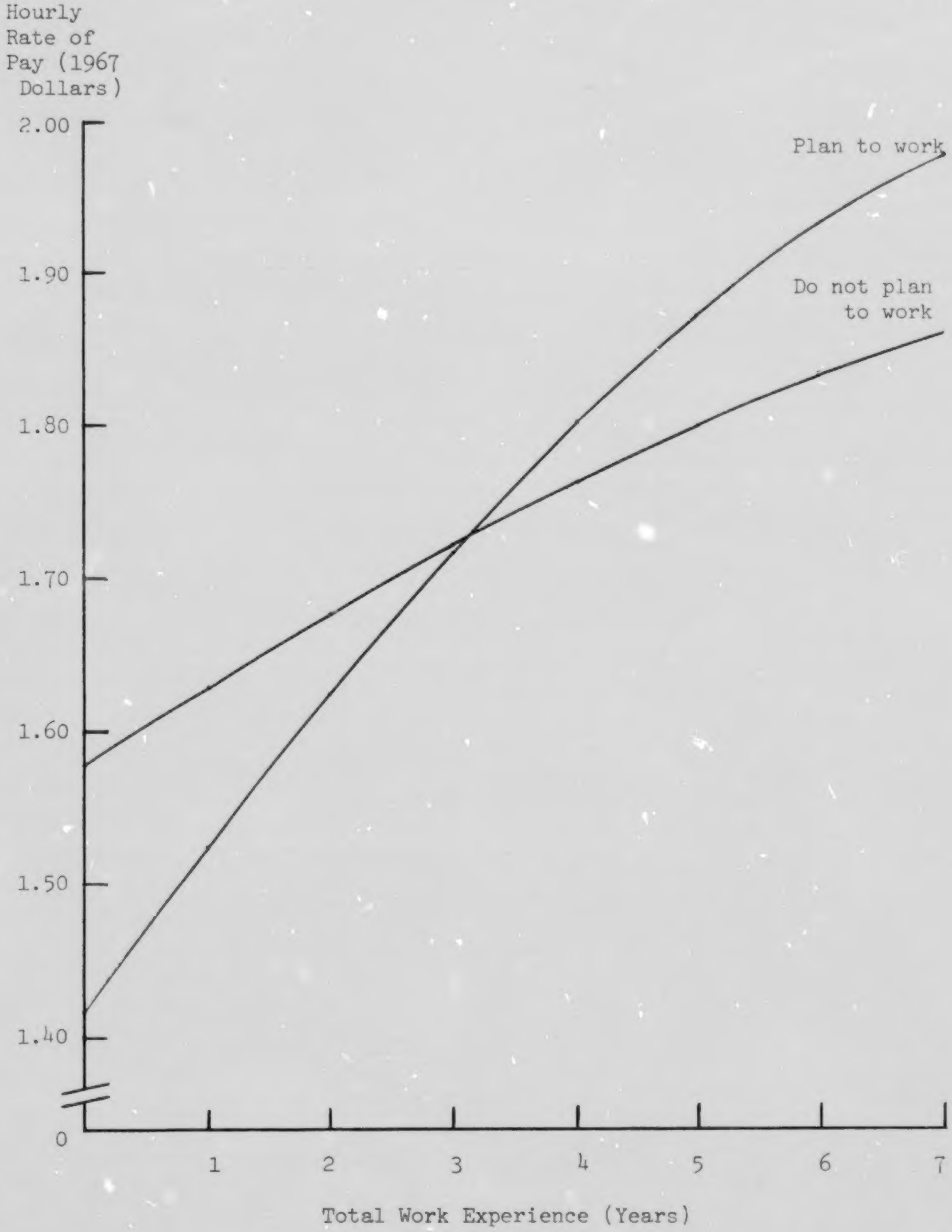
insignificant (and positive), presumably reflecting multicollinearity. Consequently, a linear specification of tenure was used for blacks. In any case, for both blacks and whites, the empirical differences by plans to work would be quite similar if we had reported estimates of the wage equations using linear specifications of total work experience and tenure.

[18] Profiles generated from the wage equation depict the relationships between experience and the natural logarithm of the hourly wage rate. For purposes of Figure 5.1, we have taken antilogarithms and drawn the figure with "wage" instead of "ln wage" on the vertical axis.

Figure 5.1

Experience-Wage Profiles for Young White Women by Plans to Work at Age 35 (assuming 12 years of school, an IQ of 100, zero tenure, no health problems, residence in a non-South SMSA, and employment in a private sector job not covered by a collective bargaining agreement)



wage rates subsequently. While the "plan to work" group's profile does flatten out somewhat more rapidly, it remains steeper than the profile for the "no work plans" group throughout the range of experience depicted in the figure.

Table 5.2 also reports differences by plans to work in the coefficients for tenure. Our principal hypothesis is concerned with investment in general training; however, interaction terms with tenure were included in order to see whether or not plans to work affect investment in specific training. In general, the evidence does not support the contention that women with stronger labor force attachment will invest more heavily in specific training: within race groups, there are no significant differences between the "plans" and "no plans" groups in the estimated tenure coefficients.[19]

In considering differences by race in the wage equations, it is apparent from Table 5.2 that the plans/no plans distinction is more relevant for whites than for blacks. That is, the differences among blacks in the intercept and initial slope of the experience-wage profiles, while in the expected direction, are not significant and are smaller in magnitude than those for whites. Two possible reasons for such a phenomenon have been proposed.[20] First, greater labor market discrimination against black women than white women may prevent strongly attached black women from acquiring as much on-the-job training as they would like. In addition, minimum wage laws (which have a greater impact on blacks than whites) may have a similar effect. However, thorough examination of these and other hypotheses is beyond the scope of this chapter.

Comparison by race of the remaining coefficients in the wage equations reported in Table 5A.1 indicates that, with one exception, the coefficients are broadly similar. The exception is the coefficient for residence in the South. Among whites, a young women who resides in the South is paid approximately 5 percent less, on average, than her non-South counterpart, other things equal; among blacks, the South/non-South differential exceeds 18 percent. It seems likely that this difference by race in the magnitude of the South/non-South wage differential is a reflection of greater labor market discrimination against blacks in the South.[21]

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[19] Among whites, the tenure-wage relationship is initially somewhat steeper for those women with no work plans, but flattens out more rapidly for these women as tenure increases. Among blacks, Table 5.2 indicates that the tenure coefficient is greater for the women who plan to work at age 35; however, this difference is not significant.

[20] See Rosen (1972).

[21] For a discussion of regional differences in racial discrimination, see Becker (1971), ch. 8.

To summarize, then, we find empirical support here for the hypothesis that expected future labor force attachment will be an important determinant of accumulation of general human capital through investment in on-the-job training. It has been suggested elsewhere that young women tend to underestimate the likelihood of their being in the labor force after completing child-raising.[22] Our results are consistent with the hypothesis that young women who do not desire future labor force attachment will not acquire much general training in job skills in the initial stages of their working lives. Consequently, it seems likely that many young women will be at a serious disadvantage if they attempt to reenter the labor force after raising a family. This suggests that young women should be more accurately apprised of the likelihood that they will be in the labor force following child-raising, and the desirability of being adequately prepared for this labor market experience. Counseling and vocational guidance at both the secondary school and college levels could be utilized in this regard.

WAGE DIFFERENCES BY SEX AND THE EFFECTS OF POSTSCHOOL INVESTMENTS IN TRAINING

In the previous section, we found empirical evidence which supports the human capital hypothesis that postschool investments in (general) training are greater for young women with stronger expected attachment to the labor force over the life cycle. A further implication of human capital theory is that investments in training should be greater for young men than for young women, since women (but not men) face prospective discontinuity in lifetime labor force experience. This implication is considered in the present section, which examines differences in postschool investment behavior between the strongly attached young women and young men.[23] In addition, we examine differences (among whites) in the wage structures by sex more generally, in order to inquire into the underlying sources of the wage gap between young men and young women.

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[22] Jusenius and Sandell (1974) report that in 1968, approximately 29 percent of the young white women in the NLS sample planned to work at age 35, while the corresponding figure for young black women was 59 percent. Actual labor force participation rates in 1967 for the older NLS woman (33 to 37 years of age) were 47 percent for whites and 67 percent for blacks.

[23] The overwhelming majority (over 85 percent) of strongly attached young women expect to bear children. Hence, on average, young men should have greater expected lifetime attachment to the labor force (and greater incentive to invest in on-the-job training) than the strongly attached young women.

As noted previously (footnote 1), the comparative analysis of the wage rates of young women and young men is based on the 1972 survey of young women (conducted between January and April of 1972) and the 1971 survey of young men (conducted between October 1971 and February 1972). Wage equations were estimated for both groups. The samples are comparable to those used in the analysis in the previous section, in that they consist of persons who were not full time students and who were employed as wage and salary workers at the time of the survey. The samples were further restricted to respondents who ranged in age from 19 to 28.[24] Summary statistics for certain variables of interest are shown for each group in Table 5.3; more complete information, including occupational distributions, is given in Appendix Tables 5A.2 and 5A.3.

Empirical Estimates

The wage equations for young women who plan to work at age 35 and for young men are reported in full in Appendix Table 5A.4. The specifications used generally followed those used in the previous section.[25] To illustrate the differing postschool (general) investment behavior of young men and strongly attached young women, we consider a ("typical") young man and young women, each of whom is a high school graduate who lives in a non-South SMSA, has an IQ of 100, is employed in an establishment in the private sector and not covered by a collective bargaining agreement, and is new to the job (i.e., has no tenure). The respective experience-wage profiles for two such hypothetical persons that are implied by the wage equations in Appendix Table 5A.4 are depicted in Figure 5.2.

The profiles depicted in Figure 5.2 do not offer very much support for the thesis that the male profile should start at a lower level and advance more rapidly than the profile for the young women. For one thing, the men's profile lies uniformly above the women's profile, despite the fact that it should be depressed at low levels of work experience. This is consistent with human capital theory only if the male-female gap at zero experience (which amounts to $.66 in Figure 5.2), would have been even larger in the absence of

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[24] If they had not been so restricted, the women would have ranged in age from 18 to 28 and the men from 19 to 29.

[25] Information on health limitations was not available on the 1972 survey of young women; the variable representing health limitations was accordingly dropped from the men's equation, in order to increase that equation's comparability to the young women's equation. Since information on actual work experience could not be ascertained for young men in the same way as for young women, potential work experience (time out of school) was used as a proxy.

Table 5.3 Selected Variable Means and Standard Deviations, by Sex[a]

Variable[b]	Young women		Young men	
	Mean	Standard deviation	Mean	Standard deviation
Highest grade completed	13.18	1.90	12.98	2.39
Total work experience (years)	3.39	2.56	c	c
Potential work experience (years)	d	d	4.55	3.09
Tenure on current job (years)	1.96	1.95	2.39	2.40
Hourly rate of pay (cents)	231.65	132.71	386.25	164.42
Age	23.33	2.82	23.81	2.63
Number of respondents	294		1,241	

[a] The samples consist of white young women (men) who were employed as wage and salary workers and were not full time students as of the 1972 (1971) survey, and for whom the required data are ascertainable.

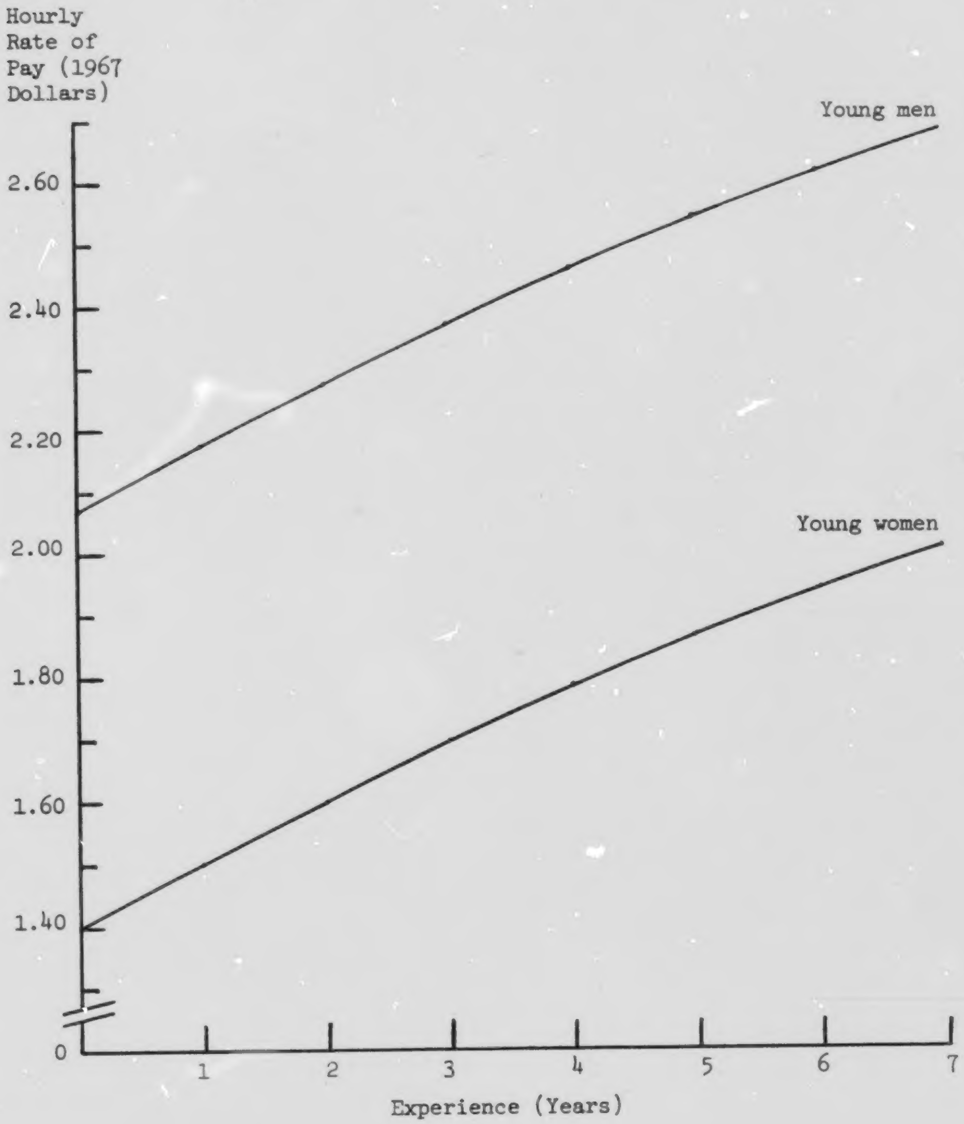
[b] All variables are defined in the Glossary.

[c] Not available for this sample.

[c] Not utilized for this sample.

Figure 5.2

Experience-Wage Profiles for White "Strongly Attached" Young Women and Young Men (assuming 12 years of schooling, an IQ of 100, zero tenure, residence in a non-South SMSA, and employment in a private sector job not covered by a collective bargaining agreement)



the investment which (presumably) leads to a steeper men's profile. The investigation of the sources of the gap between the two profiles (such as discrmination), apart from differential investment behavior, is an important topic which lies beyond the scope of this inquiry. Another problem is that the two profiles are nearly parallel, diverging significantly only at high (eight years or more) levels of experience. This, too, is a question which deserves further attention.

Wage-Gap Analysis

The technique of "wage-gap analysis" has been used by some researchers[26] to decompose the difference in average wages between two groups (e.g., males and females, blacks and whites) into that portion which is accounted for by differential "endowments" of those characteristics which are presumed to determine wages and that portion which is accounted for by differences in the wage "structure," as represented by the regression coefficients of estimated wage equations for the two groups in question. That is, it is possible that a member of one group receives a lower return to a given endowment of a certain characteristic than a member of the other group.

In applying this technique to our samples of young women and young men, we first note that the geometric mean wage[27] for the female sample is $2.06, whereas that for the male sample is $2.93. If the young women had the average characteristics of the young men (rather than their own characteristics), but were still subject to the female wage structure, the resulting (geometric) mean wage would be $2.15. Hence, using the female wage structure, the sex difference in endowments of those characteristics presumed to influence wages accounts for only $0.09 of the $0.87 difference in mean wages. Conversely, if the young men had the average characteristics of the young women, but were still subject to the male wage structure, the resulting (geometric) mean wage would be $2.76. Using the male wage structure, then, the sex difference in endowments accounts for $0.17 of the actual wage gap.[28]

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[26] For instance, see Blinder (1973), Kohen and Roderick (1975), and Oaxaca (1973).

[27] Due to the semilogarithmic specification of the wage equations, the use of the geometric mean hourly rate of pay (the antilogarithm of the mean of the natural logarithm of the wage) is more appropriate than the arithmetic mean.

[28] The methodology used here involves the familiar index number problem; hence, we get two estimates (establishing a range of possible values) of the importance of sex differences in endowments of those characteristics presumed to influence wages.

Clearly, different endowments of these characteristics play only a minor role in determination of the wage gap among young workers: on average, the different endowments of young men and women can account for only a little more than 15 percent of the wage gap. The remainder of the wage gap--that portion attributable to differences in the wage structure--may be viewed as an upper limit estimate of the impact of discrimination.[29]

SUMMARY AND CONCLUSIONS

We began by considering the role of expectations of future labor force attachment in influencing postschool human capital investment behavior. Three groups were distinguished: 1) women whose expected attachment to the labor force over the life cycle is weak; 2) women whose expected attachment is (relatively) strong; and 3) men, whose expected attachment is strongest. We hypothesized that investment in on-the-job training should increase as one moves across these groups.

Differences in postschool investment behavior between the weakly and strongly attached women were considered first. Human capital theory suggests that experience-wage profiles for workers who invest relatively heavily in on-the-job training will start at a lower point and be steeper in slope than those for workers with low levels of investment. Estimation of experience-wage profiles for the two groups of women provided tentative support for our hypothesis: the profiles for the strongly attached women began at a lower point and were more steeply sloped than those for the weakly attached women, suggesting that women in the former group do indeed invest more heavily in on-the-job training than women in the latter group. These differences in profiles were more pronounced among whites than among blacks.

We next examined differences (among whites) in postschool investment behavior between the strongly attached young women and young men. Estimation of experience-wage profiles for these two groups did not provide support for our hypothesis: we expected the profile for men to start at a lower point and be more steeply sloped; however, the estimated profiles for these two groups were essentially parallel, with the profile for women being considerably below that for men. In addition, a wage-gap analysis of the differences in wage rates between the young women and the young men revealed that sex differences in endowments of those characteristics presumed to determine wages could account for only a small portion of the average difference in wage rates. The remainder of the wage gap (that portion attributable to differences in the wage structure) may be viewed as an upper limit estimate of the impact of discrimination.

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[29] This analysis does not explore the question of whether the differences in endowments themselves are a result of discrimination; cf., Blinder (1973).

In brief, then, we find only partial support for our hypothesis that investments in on-the-job training will increase as one moves from weakly attached women to strongly attached women to men. The empirical evidence tentatively supports our hypothesis in comparing the two groups of women, but not in comparing the strongly attached women to the men.[30] This research thus raises important questions that deserve future examination. Why are differences in investment behavior between weakly attached women and strongly attached women more pronounced among whites than among blacks? Why are men paid considerably more than (strongly attached) women, despite the similar patterns of investment in on-the-job training for these two groups?

We have suggested above that discrimination may be relevant in considering these questions. Rather than bringing in discrimination as a deus ex machina, however, future research should focus on attempting to clarify the impact of discrimination as well as other factors. For example, we noted earlier that postschool human capital investments will be manifested largely through occupational choice. The process of occupational choice and patterns of occupational mobility, and their relationships to expected lifetime labor force attachment and sex, are areas which deserve further study. Occupational choice and occupational mobility are presumably influenced by labor market expectations, but they are also likely to be influenced by direct labor market discrimination and by social norms concerning the "proper" roles of women and men (indirect discrimination?). Greater understanding of the relative importance of each of these factors in determination of occupational attachment and wage rates would be most desirable.

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[30] In light of the evidence (concerning brief labor force withdrawal associated with childbearing) presented in Chapter 3 of this volume, one might argue that differences in lifetime labor force attachment between young men and "strongly attached" young women are negligible with regard to their impact on investments in on-the-job training. This view would account for the fact that the estimated profiles are nearly parallel; however, the difference in height remains unexplained.

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GLOSSARY

AGE

Age of the respondent as of January 1, of the survey in question (1972 or 1973) in the case of the young women, and as of April 1, 1971 in the case of the young men.

COLLECTIVE BARGAINING COVERAGE

Takes a value of one if the respondent's wages are set by a collective bargaining agreement, and zero otherwise.

DESIRE TO WORK AT AGE 35

Takes a value of one if the respondent indicated at the time of the 1968 survey that she desired to be employed at age 35, and zero otherwise.

DESIRE-TENURE INTERACTION

Equals tenure on current job if the respondent desires to work at age 35 and zero otherwise.

DESIRE-TENURE SQUARED INTERACTION

Equals the square of tenure on current job if the respondent desires to work at age 35 and zero otherwise.

DESIRE-WORK EXPERIENCE INTERACTION

Equals total work experience if the respondent desires to work at age 35 and zero otherwise.

DESIRE-WORK EXPERIENCE SQUARED INTERACTION

Equals the square of total work experience if the respondent desires to work at age 35 and zero otherwise.

EXPECTED NUMBER OF [illegible]ILDREN

Equals the total number of children the respondent expects to bear during her lifetime as reported in the 1973 survey.

HEALTH LIMITATIONS

Takes a value of one if the respondent has a self-defined work-limiting health problem and zero otherwise.

HIGHEST GRADE COMPLETED

Highest grade of "regular" school completed by the respondent as of the survey in question.

HOURLY RATE OF PAY

Usual gross rate of compensation per hour on the job in question.

INTELLIGENCE QUOTIENT (IQ)

Test score obtained from the 1968 school survey.

POTENTIAL WORK EXPERIENCE

Number of months elapsed since the respondent left school (divided by 12 so that it is expressed in years).

POTENTIAL WORK EXPERIENCE SQUARED

Equals the square of potential work experience.

PUBLIC SECTOR EMPLOYMENT

Takes a value of one if the respondent is employed in the public sector and zero otherwise.

RESIDENCE IN SMSA

Takes a value of one if the respondent resides in a Standard Metropolitan Statistical Area and zero otherwise.

RESIDENCE IN SOUTH

Takes a value of one if the respondent resides in the South and zero otherwise.

TENURE ON CURRENT JOB

Number of months that a respondent has worked for her/his current employer (divided by 12 so that it is expressed in years).

TENURE ON CURRENT JOB SQUARED

Equals the square of tenure on current job.

TOTAL WORK EXPERIENCE

Number of years the respondent has worked six months or more since she was last enrolled full time in (regular) school.

TOTAL WORK EXPERIENCE SQUARED

Equals the square of total work experience.

Table 5A.1 1973 Wage Equations for Young Women, by Race: Regression Results[a,b]

Independent variable[c]	WHITES		BLACKS	
	Coefficient	(t-value)	Coefficient	(t-value)
Highest grade completed	.0790	(10.73)***	.0833	(7.17)***
Total work experience (years)	.0335	(1.91)**	.0424	(1.40)*
Total work experience squared	-.0014	(-0.86)	-.0039	(-1.45)*
Tenure on current job (years)	.0831	(4.64)***	.0303	(2.21)***
Tenure on current job squared	-.0064	(-2.89)***	d	d
Collective bargaining coverage	.1672	(5.69)***	.1659	(4.54)***
Public sector employment	.0433	(1.45)*	.0136	(0.34)
Health problems	-.0561	(-1.19)	.0848	(0.99)
Residence in SMSA	.1506	(6.36)***	.1702	(3.78)***
Residence in South	-.0451	(-1.80)**	-.1811	(-5.18)***
Intelligence quotient	.0029	(3.06)***	.0032	(2.49)***
Desire to work at age 35	-.1057	(-1.43)*	-.0757	(-0.90)
Desire-work experience interaction	.0426	(1.30)*	.0119	(0.29)
Desire-work experience squared interaction	-.0027	(-0.94)	-.0013	(-0.36)
Desire-tenure interaction	-.0179	(-0.57)	.0168	(0.84)
Desire-tenure squared interaction	.0023	(0.64)	d	d
Constant	3.6720	(30.61)***	3.7340	(20.65)***
R^2 (adjusted)	.331		.492	
F-ratio	30.97***		19.24***	
Number of respondents	970		265	

a The sample consists of women who were employed as wage and salary workers and were not enrolled in school full time as of the 1973 survey, and for whom the required data are ascertainable.

b The dependent variable is the natural logarithm of the hourly rate of pay on the job held at the time of the 1973 survey (in 1967 dollars).

c All variables are defined in the Glossary.

d Not included in this equation.

* Significant at the 10 percent level.

** Significant at the 5 percent level.

*** Significant at the 1 percent level.

Table 5A.2 Variable Means and Standard Deviations, by Sex[a]

Variable[b]	Young women		Young men	
	Mean	Standard deviation	Mean	Standard deviation
Hourly rate of pay (cents)	231.65	132.71	386.35	164.42
Log of hourly rate of pay[c]	5.33	0.48	5.68	0.41
Highest grade completed	13.18	1.90	12.98	2.39
Total work experience (years)	3.39	2.56	d	d
Total work experience squared	18.04	25.22	d	d
Potential work experience (years)	d	d	4.55	3.09
Potential work experience squared	d	d	30.24	35.76
Tenure on current job (years)	1.96	1.95	2.39	2.40
Tenure on current job squared	7.63	15.56	11.49	21.70
Collective bargaining coverage	0.20	0.40	0.33	0.47
Public sector employment	0.28	0.45	0.13	0.34
Residence in SMSA	0.63	0.48	0.66	0.48
Residence in South	0.27	0.45	0.27	0.44
Intelligence quotient	106.78	13.09	102.93	13.33
Number of respondents	294		1,241	

[a] The samples consist of white young women (men) who were employed as wage and salary workers and were not full time students as of the 1972 (1971) survey, and for whom the required data are ascertainable.

[b] All variables are defined in the Glossary.

[c] The means of these variables imply a geometric mean hourly rate of pay of 205.98 for the young women and 293.00 for the young men.

[d] Not available for this sample.

Table 5A.3 Occupational Distribution by Sex[a]

One-digit occupational group	Young women	Young men
Total percent	100.0	100.0
Professionals	22.0	17.3
Managers	2.3	11.3
Clerical workers	45.3	7.8
Sales workers	6.5	7.3
Craftsmen	0.7	20.5
Operatives	8.1	22.3
Household workers	2.5	0.0
Service workers	11.2	4.9
Farmers	0.0	0.3
Farm laborers	0.0	1.3
Nonfarm laborers	0.0	7.0
Not ascertainable	1.4	0.1
Number of respondents	294	1,241

[a] The samples consist of white young women (men) who were employed as wage and salary workers and were not full time students as of the 1972 (1971) survey, and for whom the required data are ascertainable.

Table 5A.4 Wage Equations by Sex: Regression Results[a,b]

Independent variable[c]	Young women		Young men	
	Coefficient	t-value	Coefficient	t-value
Highest grade completed	.0474	(2.99)***	.0468	(9.13)***
Total work experience (years)	.0740	(2.50)***	d	d
Total work experience squared	-.0032	(-1.07)	d	d
Potential work experience (years)	d	d	.0510	(4.19)***
Potential work experience squared	d	d	-.0020	(-2.03)**
Tenure on current job (years)	.0383	(1.16)	.0795	(7.79)***
Tenure on current job squared	-.0032	(-0.77)	-.0053	(-4.81)***
Collective bargaining coverage	.3068	(4.94)***	.2162	(9.65)***
Public sector employment	.1127	(1.86)**	-.0623	(-2.02)**
Residence in SMSA	.1496	(2.95)***	.1555	(7.27)***
Residence in South	.0394	(0.72)	-.0524	(-2.26)**
Intelligence quotient	.0056	(2.78)***	.0036	(4.23)***
Constant	3.6608	(14.88)***	4.2565	(39.88)***
R^2 (adjusted)	.289		.282	
F-ratio	12.92***		49.77***	
Number of respondents	294		1,241	

a The samples consist of white young women (men) who were employed as wage and salary workers and were not full time students as of the 1972 (1971) survey, and for whom the required data are ascertainable.

b The dependent variable is the natural logarithm of the hourly rate of pay on the job held at the time of the survey (in 1967 dollars).

c All variables are defined in the Glossary.

** Significant at the 5 percent level.

*** Significant at the 1 percent level.

CHAPTER 6

THE GEOGRAPHIC MOBILITY OF YOUNG WOMEN AND THEIR FAMILIES

Steven H. Sandell and Peter J. Koenig

INTRODUCTION

In this chapter, the determinants of migration and the effect of geographic mobility on the labor market earnings of married men and women and single women are analyzed.[1] This study has relevance to policy considerations in at least two respects. First, to the degree that married women have their careers disrupted by the migration of their husbands or are inhibited from migrating to further their own careers, the effect of these factors must be taken into account when interpreting differences in wages between equally circumstanced men and women. Second, knowledge of the effect of unemployment on migration is a prerequisite to effective policies for dealing with the geographic dimension of structural unemployment.[2]

THE THEORY OF FAMILY MIGRATION

The Model

In our development of a dual-location, work-leisure choice model, nonpecuniary benefits from working or living in either location are ignored.[3] The family is assumed to attempt to maximize its utility, which is posited to depend on total family income, the wife's leisure, and the husband's leisure. Total family income is a function of the wage rates of husband and wife and the amount of labor that each offers. The present model is an extension of the standard labor supply model in that the family is allowed to migrate, thereby changing the husband's and wife's wage rates. If the family does migrate, moving costs are subtracted from total family income.

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[1] The framework used is similar to that used by one of the authors in a previous study of the migration of mature women (Sandell, 1975).

[2] While the authors acknowledge the many noneconomic aspects of migration, this paper is concerned primarily with the economic aspects.

[3] We make the simplifying assumption that family income consists of only the labor market earnings of the husband and wife. Inclusion of nonlabor income or labor market earnings of other family members would not change the conclusions.

The choice of residence depends not only on the wage rates obtainable by the husband and wife but also on their dispositions to enter or remain in the labor market. A potentially high wage for the wife in a new location would not provide an incentive for the family to migrate if the wife would not choose to work at that wage. Hence, for families where the wife would not work at any conceivable wage, the decision to migrate becomes a function of the husband's labor market opportunities only. If the wife is willing to work at certain wage rates, then her labor market opportunities become a consideration in the family's location choice.

In families where the husband and wife both work we would expect less migration than among other families. That is, the potential reduction in the wife's earnings is considered by the husband to be a cost of a geographic job change on his part and will constrain both his job search behavior and family migration. Likewise, it often does not pay for the wife to search for a job in a distant area until her husband has obtained satisfactory employment there, since his potential reduction in earnings is otherwise quite large.

The greater utility achieved in the new location for the migrant family can be associated with a change in its labor supply. Thus, the new set of wage rates available to the migrant family can lead to increased income with the same or an increased amount of leisure, increased leisure at the same level of income, increased leisure which more than compensates for reduced family income, or increased family income which more than compensates for reduced leisure. It is also possible for the total family labor supply to remain unchanged while the wife and husband change their individual hours of work in response to the new market wages.

As a consequence of migration, the family faces a new set of temporary and permanent market prices on which it bases its behavior. Since there are costs to job switching and since job search often requires flexible hours, recent female migrants might refuse low-paying jobs (or jobs with little chance of career advancement) that would be immediately available in order first to make an extensive search of the new labor market. In addition, the high value the family places on the wife's time in setting up the new household might initially keep her out of the labor force. Hence, holding skill and education constant, we would expect to observe higher unemployment rates and lower labor force participation rates among married women who are recent migrants than among other married women.

Fertility plans, by affecting the costs associated with moving, can affect migratory behavior. If a working wife were planning to drop out of the labor force, irrespective of the decision to move, the cost to the family of setting up a household in a new location would be reduced; thus there would be a greater likelihood of migration. On the other hand, the presence or prospect of a child could make the husband more cautious about quitting his job, thereby inhibiting migration. Conversely, migration may affect fertility plans. The wife may decide to work fewer hours (or not at all) and revise her fertility plans if as a result of migration her wage rate is decreased or her husband's wage rate is increased.

Unemployment, Unemployment Compensation, and the Propensity to Migrate

In a two-worker family, the unemployment status of each breadwinner is important. An unemployed person will migrate if job prospects appear better elsewhere. DaVanzo (1976) presents some empirical evidence showing that unemployed persons are more likely to migrate than are persons who are working.

The receipt of unemployment compensation is expected to be negatively associated with migration. First, the receipt of compensation could reduce the pressure on the family to migrate. Second, to the extent that unemployment compensation subsidizes job search only in the person's original area of residence (because of ignorance of the possibility of receiving compensation in another location), persons who receive unemployment compensation are less likely to migrate than are other unemployed persons.[4] In addition, since job quitters are usually not eligible for unemployment compensation and are more likely to migrate, persons who did not receive benefits are more likely to migrate than other unemployed persons.

The theoretical effect of national economic conditions on family migration is ambiguous. The greater number of employment opportunities during an economic upswing should induce more migration during prosperous than depressed economic periods. It is well documented that job quits are lower when economic conditions are poor (Parsons, 1973). Risk averse individuals will be less likely to make voluntary (geographic) job changes in poor compared to prosperous times. On the other hand, since unemployed persons are more likely to migrate than employed persons, the migration rate could be greater during poor economic conditions when there are more unemployed.[5,6]

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[4] An unemployed migrant can continue to collect unemployment insurance benefits from his original area of residence. See U.S. Department of Labor (1973).

[5] This assumes that some of the employed believe employment prospects are better elsewhere.

[6] The literature on the effect of the business cycle on migration is sparse. Eldridge (1964) found that U.S. migration fell precipitously during the Great Depression years. Shister (1950) noted the

The College Experience and the Propensity to Migrate

Aside from the effect of college on labor market earnings, other aspects of the college experience might contribute to later migratory behavior. In particular, living in a different city than that of the parental family while attending college might be related to subsequent migration experience in the following manner:

1. The decision to attend school out of town might reflect a "taste for migration." Persons who live away from their parents while in college probably originally had looser ties to their parents' residence than persons who attend college locally. If this is the case, these persons would be less likely to live in the locality in which they attended high school after they graduate from college.

2. Even if those who attend college locally and those who go away to college begin college with similar "tastes for migration," the different college experiences might lead to different postcollege migratory behavior. To the extent that hometown ties are loosened during the college years for those who are away from home, these students are more likely to move to a new locale after graduation than are those who attended college in proximity to their high school residence. Furthermore, local college attendees are more likely to find employment or to marry persons who have found employment in the local area.

Family Income and the Migration Decision

In this section, a model of the migration decision is presented based on the assumption that the family's objective is to maximize the present value of its total expected future income stream. Let the value of the expected future family stream of earnings be equal to the sum of the present value of the labor market earnings of the husband plus the present value of the labor market earnings of the wife.

If a family acts rationally (from an economic perspective) and decides to move, it expects the present value of the returns to migration to exceed the cost of migration. That is, the expected earnings stream after migration must be greater than the expected earnings without migration by at least the cost of the move. For the household with two persons willing to work, it is not possible to say anything about the income stream of either spouse separately without additional information. Maximization of family earnings implies that the sum of the two personal income streams must increase as a result of migration. This can happen if both increase or if the increase in the income stream of one spouse is greater than the

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variations in labor mobility related to the business cycles of the thirties and forties. International migration is also influenced by the business cycle (Jerome, 1926).

reduction of the income stream of the other (plus the cost of moving). The motivation for a family's migration could be due solely to improvement of the husband's earnings if the negative effect on the earnings of the wife is offset by the husband's improvement.

The model immediately yields a testable hypothesis: migrant families expect their total earnings stream after migration to be greater than it would have been without migration. Assuming that expectations are fulfilled (in the aggregate) and using earnings in a single year as a proxy for the earnings stream, the hypothesis can be tested with the NLS data. When relevant personal and labor market characteristics are controlled, it is hypothesized that the increase in labor market earnings of migrant families (between the year before and the year after migration) should be greater than the increase for nonmigrant families.[7] For married women, the relevant earnings figure is the sum of their own plus their husbands' labor market earnings. For single women, only their own earnings are relevant.

EMPIRICAL TESTS

In this section, hypotheses developed from the model of family migration are tested empirically. These involve two aspects of migration: the determinants of migration and the effect of the geographic movement on family and individual earnings. Because of the limited number of observations for blacks, the empirical tests often focus exclusively on whites.

The Likelihood of Migration

The dependent variable to be used in the regression analyses is a dummy variable with the value "1" if the family is migratory and the value "0" otherwise.[8] A family is considered to have migrated if it reports that its county or SMSA or residence is different in at least one survey year (1969 to 1973) than it was in 1968.[9]

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[7] Assuming a given migration is final, the difference in current incomes (before and after migration) is a valid proxy for the present value of returns to migration, since the two are highly correlated (Schwartz, 1968).

[8] Because of the econometric problems associated with estimation when the dependent variable can only take the values "0" or "1" (Theil [1971], pp. 632-33), logit analysis was used. The dependent variable is converted to the natural log of the relative probability of migrating (i.e., $\ln \frac{p}{1-p}$).

The probability of a family's moving depends on labor-market-related personal characteristics of each labor force participant. If migration is looked at as an investment, the incentive to move should decrease with age, since the length of time over which the person can reap benefits from moving decreases and the psychic costs of moving probably increase. Since the geographic scope of the labor market is likely to be larger for the highly educated than for the less educated, migration is expected to be positively related to education.[10]

For our purposes, however, these variables are control variables. Our chief interest is the effect on the migration decision of the wife's labor force commitment. Since it has been shown that a family is probably less likely to improve its economic position by migration if two persons rather than one are working, the propensity of the family to move is expected to be inversely related to the labor force commitment of the wife. Thus, coefficients of the variables for the wife's survey week employment status, job tenure, and weeks worked over the previous year are crucial. These three variables will be introduced into three separate versions of the 1968 to 1973 family migration model.

To examine the effect of unemployment and unemployment compensation on migration, dummy variables are included in the regression analysis. These assume the value "1" if the young woman was unemployed at the initial survey date, if she received any unemployment compensation during the previous year, or if the husband received unemployment compensation during the previous year, and zero otherwise. Since the interview schedules contain no direct question about the husband's unemployment experience, husband's weeks worked over the previous year is used as a proxy for his unemployment experience.

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[9] Approximately 34 percent (269) of the families of white married women (same spouse present all survey years) are migrants under this definition. Between 1968 and 1973, 61 percent of the migrants moved more than 100 miles and 65 percent moved more than 50 miles. We should caution the reader that in all four NLS cohorts errors in some of the variables representing comparisons of areas of residence have been discovered. These errors are being corrected by having the Census Bureau check the addresses recorded on the interview schedules.

[10] Bowles (1970) and Schwartz (1968) explain the positive correlation between migration rates and educational level by hypothesizing that those with more education have better access to labor market information for distant regions. Further, those with more human capital are more productive in seeking investment alternatives, according to human capital theory. So, considering migration as an investment, the more educated should be more responsive to interarea wage differentials.

Attending college away from home is expected to be associated with greater postcollege migration. Thus, a dummy variable equal to "1" if the wife attended a nonlocal college, zero otherwise, is entered into the regressions. Finally, identical regressions are run for the 1968 to 1970 and 1971 to 1973 time spans, in addition to the 1968 to 1973 time span, to ascertain if the propensity to migrate is influenced by the business cycle. For the six-year period 1968 to 1973, the annual unemployment rates were 3.6, 3.5, 4.9, 5.9, 5.6 and 4.9 percent, respectively.[11]

Table 6.1 summarizes the results of the determinants of migration. The coefficients indicate the number of percentage points of the change in the probability of migration per unit change in the independent variables (for an individual originally with the sample, mean probability of migration).[12] As predicted, employment of the wife, as measured by survey week (1968) employment status, weeks worked in 1967, or 1968 job tenure, was negatively related to the likelihood of

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[11] Employment and Training Report of the President 1976, p. 389. Since the NLS interviews were conducted between January and April of each year, the 1968 to 1970 time span covers early 1968 to early 1970. The 1971 to 1973 time span covers early 1971 to early 1973.

[12] More formally, the coefficients equal (B_i) (P) (1-P) where the B_i's are the logit coefficients found in Appendix Tables 6A.1 and 6A.2 and "P" is the sample mean probability of migration. The logit coefficients found in the appendix tables indicate the percentage change in the odds in favor of migration per unit change in the independent variables. Between the husband's education and age control varibles, only the husband's age was nonsignificant and often of the theoretically wrong sign. It was hypothesized that the coefficient for husband's age would be negative since the length of time for a person to reap benefits from moving decreases with age. However, Becker's (1964) illustrative calculations indicate that returns received 20 years after an investment are so heavily discounted that they do not substantially influence the rate of return on the investment. Thus, for our very young sample (average age of the husbands was 25) it is not surprising that the differences in propensities to migrate for different ages of the husband should be unsubstantial.

Table 6.1 Net Effects of Selected Variables on the Probability of Family Migration between 1968 and 1973, 1968 and 1970, and 1971 and 1973: Logit Results[a]

Selected variables	1968-1973 migration[b] (1)	(2)	(3)	1968-1970 migration[c]	1971-1973 migration[d]
Employed[e]	- 0.080**			0.005	0.008
Tenure[e] (in months)		-0.005***			
Weeks worked over the past year			-0.002***		
Unemployed[e]	0.013	f	f	0.067	0.137**
Received unemployment compensation in past 12 months	- 0.200*	f	f	- 1.199	-0.168*
Attended nonlocal college	0.123**	f	f	0.113***	0.072
Attended local college	0.040	f	f	- 0.003	-0.043
Husband's weeks worked over past year	- 0.003*	f	f	- 0.003**	-0.004***
Husband received unemployment compensation in past 12 months	0.024	f	f	- 0.058	-0.108*
Husband's education	0.043*	f	f	0.0001	0.018**
Husband's age	0.004	f	f	0.002	-0.003
Local area unemployment rate	-0.0004	f	f	-0.0004	0.001

a All logit equations are based on unweighted data. The coefficients indicate the percentage point change in the probability of migration per unit change in the independent variables. That is, the coefficients equal $(B_i)(P)(1-P)$ where the "B_i's" are logit coefficients and "P" is the sample mean probability of migration. Complete results of the original logit equations and summary statistics are presented in Appendix Tables 6A.1 to 6A.3 and all variables are defined in the Glossary.

b Universe consists of 528 white married respondents age 17 to 24 in 1968. For all survey years (1968 to 1973), the following restrictions also apply: same spouse is present for each respondent; neither respondent nor husband are enrolled in school; husband of respondent is not in the military. The dependent variable is a dummy variable equal to "1" if respondent reports her SMSA or county of residence in 1969, 1970, 1971, 1972, or 1973 differs from her 1968 residence.

c Universe consists of 650 white married respondents age 17 to 24 in 1968. For all survey years (1968 to 1970) the following restrictions also apply: same spouse is present for each respondent; neither respondent nor husband are enrolled in school; husband of respondent is not in the military. The dependent variable is a dummy variable equal to "1" if the respondent reports her 1968 SMSA or county of residence differs from her 1969 or 1970 residence.

d Universe consists of 534 white married respondents age 17 to 24 in 1971. For all survey years (1971 to 1973) the following restrictions also apply: same spouse is present for each respondent; neither respondent nor husband are enrolled in school; husband of respondent is not in the military. The dependent variable is a dummy variable equal to "1" if the respondent reports her 1971 SMSA or county of residence differs from her 1972 or 1973 residence.

e At the 1968 (1971) interview date for the 1968 to 1970 and 1968 to 1973 equations (1971 to 1973 equations).

f Included in equation as a control variable.

* Logit coefficient significant at the 10 percent level.

** Logit coefficient significant at the 5 percent level.

*** Logit coefficient significant at the 1 percent level.

migration between 1968 and 1973.[13,14] Also, a married woman's nonlocal college attendance had a statistically significant positive effect on migration in all three samples in Table 6.1, while her local college attendance had an insignificant effect.[15,16]

The unemployment variables in Table 6.1 have the expected effects on migration. Since the wife's unemployment and fewer weeks worked by the husband are associated with greater probability of migration, it seems that the labor market welfare of both marriage

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[13] For the separate 1968 to 1970 and 1971 to 1973 migration equations, the coefficients of the respondent's labor force commitment variables were nonsignificant and positive. This apparent difference bewteen the results of the two-year time span equations and the 1968 to 1973 equations might occur because the husbands, on average, are older over the 1968 to 1973 regression sample period than over the two-year regression sample periods. That is, in the 1968 to 1970, 1971 to 1973, 1968 to 1973 equations, the respondent is between 17 and 24 at the beginning of each of the respective periods. Thus, the average age of the husbands at the end of the period examined in the 1968 to 1973 regressions is 33, while it is only 29 at the end of the periods 1968 to 1970 and 1971 to 1973. Using Census data, Mincer (1976) and Long (1974) found that the simple correlation between the wife's labor force commitment and migration was negative only when the husband was over 30. Long (1974) hypothesized that only after the husband had become established in his career did the wife's employment reduce his willingness to migrate.

[14] Variables reflecting work expectations ("Does respondent plan to be working at age 35?") and the fertility plans of working wives in 1968 were also examined. They were not significant determinants of migration.

[15] The coefficients of the wife's nonlocal college dummy variables were statistically different from the coefficients of the local college dummy variables at the 10 percent level.

[16] Further analysis showed (Appendix Table 6A.4) that a substantially higher percentage of nonlocal (compared to local) college attendees do not live in their high school area of residence after college. Of course, rural high school students are more likely to attend nonlocal colleges and to leave their high school area of residence after college. And, this could explain the positive association between nonlocal college attendance and a postcollege residence different from one's high school residence. However, this positive association remained when the sample was restricted to those residing in a city of over 25,000 at age 14 (Appendix Table 6A.4).

partners is considered in the family decision to migrate. However, the effect of wife's unemployment on migration is statistically significant only between 1971 and 1973. Nationally, unemployment rates were higher during this period than in the 1968 to 1970 period.

The statistically significant retarding effect of both the wife's and the husband's receipt of unemployment compensation in the 1968 to 1970 and 1971 to 1973 equations of Table 6.1 is subject to two interpretations.[17] In the first place, since persons who voluntarily quit their previous jobs are usually ineligible for unemployment compensation, it seems that persons who lost their jobs because of a layoff or discharge are less likely to move than persons who became unemployed as a result of their own volition. Second, it might indicate that persons who receive unemployment compensation are not familiar with the interstate migration provisions of the unemployment compensation system. That is, some persons who receive compensation would not want to risk losing their payments because of an interstate move.[18]

Tables 6.2 to 6.4 simply transform Appendix Tables 6A.1 and 6A.2 to a more readable form. All the above results are illustrated. For instance, column one, Table 6.2, suggests that the likelihood of migration is negatively related to the length of the wife's tenure at her current job.

The likelihood of migration between 1968 and 1970 and between 1971 and 1973 was 16.5 percent and 17 percent, respectively. Apparently the

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[17] The coefficients were statistically significant only at the 10 percent level. The preferred varibles would have been whether the respondent or her husband received unemployment compensation immediately prior to the relevant migration period, instead of sometime during the year previous to the migration period. Thus our unemployment compensation variables are biased toward zero, which could account for the low level of significance.

[18] The "push" effect of the local unemployment rate on out-migration was never significant. Using aggregate interarea migration data, Lansing and Mueller (1967), Wadycki (1974), and Lowry (1966), among others, reported similar findings. Many of these studies used the end-of-period local unemployment rate to analyze migration over the period. But migration will influence the end-of-period unemployment rate. This simultaneous equation bias could have accounted for the failure of unemployment to influence migration in the single equation models of past studies. We avoid this difficulty by using microdata to examine the effect of beginning-of-period unemployment on migration over the period.

Table 6.2 Percentage of White Respondents' Families Who Migrated between 1968 and 1973, by Respondent's Employment Status, Job Tenure, and College Location[a]

Employment status and job tenure	Did not attend college	Attended college	
		Local college	Nonlocal college
Out of labor force	26.7	30.3	40.8
Employed			
1 year	21.4	24.5	34.0
2 years	16.9	19.5	27.8

[a] Calculated on the basis of the logit coefficients in Equation (3), Appendix Table 6A.1, for a family with the sample means for all characteristics other than wife's 1968 survey week job tenure and college location.

Table 6.3 Percentage of White Respondents' Families Who Migrated between 1968 and 1970, by Employment Status of Respondent and Husband[a]

Respondent's employment status	Number of weeks worked by husband, 1967			Husband received unemployment compensation
	52	40	30	
Unemployed				
Without unemployment compensation	22.5	26.7	31.0	19.6
With compensation	6.4	7.9	9.5	5.4
All others	14.7	17.7	21.0	12.6

[a] Calculated on the basis of the logit coefficients in Equation (1), Appendix Table 6A.2, for a family with the sample means for all characteristics other than wife's and husband's receipt of unemployment compensation over the past year and husband's 1967 weeks worked.

Table 6.4 Percentage of White Respondents' Families Who Migrated between 1971 and 1973, by Employment Status of Respondent and Husband[a]

Respondent's employment status	Number of weeks worked by husband, 1970			Husband received unemployment compensation
	52	40	30	
Unemployed				
Without unemployment compensation	30.4	36.4	43.3	22.2
With compensation	11.8	14.9	18.9	8.0
All others	13.8	17.4	21.9	9.5

[a] Calculated on the basis of the logit coefficients in Equation (2), Appendix Table 6A.2, for a family with the sample means for all characteristics other than wife's and husband's receipt of unemployment compensation over the past year and husband's 1970 weeks worked.

migration-inducing effect of a cyclical downturn (the greater migration propensity of the unemployed compared to the employed) is almost exactly offset by the migration-retarding effect of the reduction in voluntary quits. This result may well be due to the mildness of the cyclical downturn.

However, the underlying determinants of migration listed in Table 6.1 appear to change over the business cycle. The variable reflecting "taste for migration" (wife attended a nonlocal college) is a significant positive determinant of migration during all phases of the business cycle.[19] Yet, several variables influencing the monetary gains from migration (respondent's unemployment, husband's education, and husband's receipt of unemployment compensation) are significant only during the business downturn. Also, the signs of the variables reflecting husband's age and local area unemployment rate are consistent with economic theory only during the cyclical downturn. Apparently, variables influencing the financial remuneration of migration are more important during times of economic stagnation than prosperity.[20,21] Indeed, 47 percent of the migrants during the 1971 to 1973 period reported moving for "economic" reasons (unemployment, steadier work, better job, and so on) as compared with only 38 percent in the 1968 to 1970 period.

The 1968 to 1973 regressions in Table 6.1 were also run for a sample of 118 blacks. The coefficients of wife's tenure and employment status and husband's education (all hypothesized to be correlated with the expected income return from migration) were nonsignificant. Apparently blacks respond less than whites to the expected income gain from migration. Bowles' (1970) findings were similar. He offered as an explanation evidence that blacks are more risk-averse and discount the future more than whites.

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[19] The difference between the coefficients for the dummy variables representing local and nonlocal college attended represents the effect of nonlocal college attendance on migration.

[20] The only variable whose coefficient is significantly different between the two time periods was husband's education (at the 5 percent level).

[21] A Chow test rejected at the 1 percent level the null hypothesis that the underlying determinants of migration between 1968 and 1970 were the same as the determinants between 1971 and 1973. The Chow test was performed on the OLS equivalents to the 1968 to 1970 and 1971 to 1973 equations in Table 6.1. The OLS and logit equations were very similar.

The Effect of Migration on Earnings

The coefficient of the dummy variable representing migration status in a regression equation where the dependent variable is change in labor market earnings represents the change in earnings associated with migration. By controlling for personal characteristics (i.e., age and education) and base year earnings, we isolate the net effect of migration on earnings.[22] Table 6.5 summarizes the regression results when change in the husband's, respondent's, family's and single woman's earnings and respondent's weeks worked are the dependent variables.[23]

The control variables in the regression equations summarized in Table 6.5 are worthy of some discussion.[24] A negative coefficient for age and a positive coefficient for the variable reflecting the number of years of education are predicted by the theory of human capital. Since the dependent variable is the change in earnings, we are actually examining the experience/earnings profile. Theory suggests that investment in on-the-job training is positively associated with education and negatively associated with age; therefore, it is expected that younger and more educated individuals will exhibit, ceteris paribus, faster earnings growth than their older and/or less educated counterparts. Since the propensity to migrate is positively associated with education, ommission of education from the change in earnings equation would lead to overstatement of the returns to migration.[25]

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[22] Lack of data on a migrant's job situation immediately prior to migration (i.e., whether she had been or was likely to be fired or laid off) forced us to assume that the premigration earnings stream would have persisted in the absence of migration. If this premigration earnings stream would not have persisted (e.g., the migrant had been fired or laid off), then we understate returns to migration.

[23] See Appendix Tables 6A.5 to 6A.8 for complete regression results and summary statistics.

[24] See Appendix Tables 6A.5 to 6A.8 for the coefficients of the control variables.

[25] The signs of some of the age and education coefficients in Appendix Tables 6A.5 to 6A.7 are ostensibly inconsistent with expectations. However, the only one of these that is statistically significant is the negative coefficient of wife's education when change in the wife's earnings is the dependent variable. And even this, on further reflection, is not necessarily inconsistent with human capital theory. Fleisher (1977) found that schooling increases

Table 6.5 Differences in Growth of Migrant[a] Annual Earnings (in 1968 dollars) and in Weeks Worked per Year between 1969 and 1967, by Marital Status: Regression Results[b]

Migrant characteristic[c]	Married women[d]					Single women[e] change in earnings
	Change in husband's earnings	Change in respondent's earnings	Change in respondent's weeks worked	Change in family earnings		
				Husband's variables	Respondent's variables	
Year of migration						
Between 1969 and 1972 survey dates	324	-515**	-6.6***	- 106	66	1218**
Between 1969 and 1971 survey dates	770*	-405	-5.0*	413	629	--
Reason for migration						
Economic	1064**	-367	-4.1	971*	1409*	--
Noneconomic	-355	-552**	-6.4**	-1008**	-1049**	--

a Reference group is nonmigrants.

b 1969 (1973) earnings are defined as earnings over the twelve month period preceding the 1969 (1973) survey date. See Appendix Tables 6A.5 to 6A.8 for complete regression results and Appendix Table 6A.9 for summary statistics.

c If the dependent variable is change in husband's earnings, the control variables are husband's age, education, and 1969 earnings. If change in wife's or single female's earnings is the dependent variable, the control variables correspond to her age, education, and 1969 earnings.

d Universe consists of 357 white married respondents. For all survey years (1968 to 1973), the following restrictions apply: same spouse present for each respondent; neither respondent nor husband enrolled in school; husband is not in military. Husbands over 25 years of age were not asked in the surveys if they were currently enrolled in school. Thus, there may be a few husbands over age 25 enrolled in school in the sample. Respondents included in the sample must have lived at their 1969 SMSA or county of residence at least two years and their husbands must have worked fulltime in 1969 and 1973.

e Universe consists of 107 white respondents, never married and not enrolled in school in all survey years. Respondents must have lived in 1969 SMSA or county of residence at least two years to be included in sample.

* Significant at the 10 percent level.

** Significant at the 5 percent level.

*** Significant at the 1 percent level.

Consider first the impact of migration between 1969 and 1972 on 1973 earnings. The regression results suggest that the effect of migration on the husband's earnings is positive, although the migration coefficient is never statistically significant. Migration has a negative and statistically significant effect on the wife's earnings. Migration does not improve family (husband plus wife) earnings.

For a single woman, migration will theoretically occur only if the move is expected to increase her utility. Since this condition does not necessarily hold for married women (or any individual member of multiperson households), we would expect to observe, on average, a greater increase in personal welfare due to migration for single than for married women. While own earnings may not be a good proxy for the welfare of a married woman, change in earnings may be regarded as a first approximation to change in welfare for a single woman who usually works full time. Our results are consistent with this line of reasoning. Ceteris paribus, between 1969 and 1973, single female migrants registered earnings gains of $1,200 more than single nonmigrants.

To provide some insight into the source of the earnings loss to migrant married women, we regressed the change in annual weeks worked between the 1969 and 1973 surveys on migration dummy variables and the number of weeks worked in the 12 months prior to the 1969 survey date (Table 6.5). The statistically significant negative coefficient for the (1969 to 1972) migration dummy indicates that the slower growth in the earnings of migrant wives as compared to nonmobile women is due to reduced market work. Multiplying the respondent's average 1968 weekly earnings ($148) by the decline in annual weeks worked following migration (6.6), we can more than explain the decline in their earnings shown in Table 6.5.

Comparison of the coefficient for migration between 1969 and 1972 with that for migration between 1969 and 1971 suggests that the difference in weeks worked between migrant and nonmigrant married respondents narrows with the passing of time. This implies that the initial reduced work effort represents a cost of migration for the wife rather than a change in taste for work by migrants. It seems to be optimal from the family viewpoint for the migrant wife to forego market work in order to set up the new household and search for a

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a mother's productivity in producing child "quality" (defined by IQ, schooling, and postschool wage of the child) more than it increases her market productivity. This would explain Leibowitz's (1972) finding that better educated women are more likley than their less educated counterparts to reduce their labor force participation when they have children. And this, in turn, could explain our negative education coefficient in the wife's change in earnings equation.

desirable job. After two years in their new residences, the earnings of migrant wives are not significantly different from those of nonmigrant wives.

The observed effect of migration on individual and family earnings does not appear to support our model. Perhaps the small earnings increase for husbands and the lack of change in family earnings between 1969 and 1973 from migration are short-run phenomena. Important postmigration on-the-job training (at the cost of temporarily lower earnings) could be occurring at this stage of the life cycle, in which case migration might be beneficial in the long run. Indeed, the effect of 1969 to 1971 migration on the husband's 1973 earnings was positive and significant at the 10 percent level. Moreover, the effect of 1969 to 1971 migration on the family's 1973 earnings was positive, but nonsignificant.

It must be remembered that our model has ignored noneconomic aspects of migration and some families undoubtedly migrated for nonpecuniary reasons. In this connection, it should be noted that husband's and family's earnings registered substantial gains in those cases in which respondents claimed to have migrated for "economic reasons." Conversely, those who migrated for "noneconomic reasons" were willing to sacrifice, on average, $1,000 or 12 percent of total family earnings in exchange for the nonpecuniary benefits of their new residence (Table 6.5)[26]

SUMMARY AND CONCLUSIONS

In this chapter several determinants of family migration have been examined. First, it is clear that the labor market orientation of married women enters family decisions to migrate. Second, families in which either the husband or wife experiences unemployment are more likely to be geographically mobile than other families. Third, migration seems to be more closely associated with economic variables (e.g., age, education, unemployment and labor supply) when overall economic conditions are poor than prosperous. Finally, nonlocal college attendees are more likely to migrate than persons who attended local colleges.

The observed effect of migration on individual and family earnings often does not support our model. Perhaps the small earnings increase for husbands and the inconsequential effect of migration on family earnings between 1969 and 1973 are short-run phenomena. Important on-the-job training takes place at this stage of the life cycle, which may make migration beneficial in the long run even when no short-run benefits are evident. The earnings loss to migrant wives diminishes over time as their labor supply increases.

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[26] It must be acknowledged, however, that since migrants were asked why they migrated after the migration, their responses may be rationalizations of economic disappointments.

We observe significant differences in the effect of migration on the earnings of single compared to married women. This chapter, we believe, is the first documentation of the earnings gain to unmarried women who migrate. They gain $1,200 per year more than nonmigrants, while migrant wives earn $500 per year less than their nonmobile counterparts.

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GLOSSARY

ATTENDED LOCAL COLLEGE

A dummy variable which assumes the value of one if the young woman attended a local college and zero otherwise.

ATTENDED NONLOCAL COLLEGE

A dummy variable which assumes the value of one if the young woman attended a nonlocal college and zero otherwise.

CHANGE IN EARNINGS

A change in earnings from the initial survey to the specified final survey.

EARNINGS

The amount of earnings from wages and salary.

EDUCATION

The highest year of "regular" school completed--from 0 to 18. "Regular" schools include graded public, private, and parochial elementary and secondary schools; colleges; universities; and professional schools.

EMPLOYED

A dummy variable which assumes the value of one if the young women is employed during the survey week and zero otherwise.

HUSBAND RECEIVED UNEMPLOYMENT COMPENSATION IN PAST 12 MONTHS

A dummy variable which assumes the value of one if the husband received any unemployment compensation during the year prior to the initial survey week.

HUSBAND'S WEEKS WORKED OVER PAST YEAR

The number of weeks worked by the respondent's husband in the past year as reported at the initial survey date.

(Used as a proxy for his unemployment experience.)

LOCAL AREA UNEMPLOYMENT RATE

The unemployment rate for the local area reported by the respondent at the initial survey date.

(Source: The Bureau of the Census, 1960)

MIGRATED FOR ECONOMIC REASONS

A dummy variable which assumes the value of one if the respondent migrated for economic reasons and zero otherwise.

MIGRATED FOR NONECONOMIC REASONS

A dummy variable which assumes the value of one if the respondent migrated for noneconomic reasons and zero otherwise.

MIGRATION

Dummy variables which assume the value of one if the respondent migrated between the indicated surveys and zero otherwise.

MULTIPLE MIGRANTS

A dummy variable which assumes the value of one if the respondent migrated more than once between the indicated surveys and zero otherwise.

RECEIVED UNEMPLOYMENT COMPENSATION IN PAST 12 MONTHS

A dummy variable which assumes the value of one if the young woman received any unemployment compensation during the year prior to the initial survey date and zero otherwise.

TENURE

A measure (in months) of the young woman's length of service on the job reported during the survey week.

UNEMPLOYED

A dummy variable which assumes the value of one if the young woman was unemployed at the initial survey date and zero otherwise.

WEEKS WORKED OVER THE PAST YEAR

The number of weeks worked by the young woman in the past year as reported at the initial survey date.

Table 6A.1 The Likelihood of Family Migration between 1968 and 1973: Logit Results[a,b]

Independent variables[c]	Equation (1)		Equation (2)		Equation (3)	
	Coeff.	(t-value)	Coeff.	(t-value)	Coeff.	(t-value)
Employed, 1968 survey date	-0.424	(-1.90)**				
1967 weeks worked			-0.013	(-2.50)***		
Tenure, 1968 (in months)					-0.024	(-3.09)***
Unemployed, 1968	0.069	(0.15)	0.095	(0.21)	0.044	(0.10)
Received unemployment compensation in past 12 months	-1.059	(1.40)*	-0.982	(-1.28)	-0.965	(-1.25)
Attended nonlocal college	0.651	(1.89)**	0.720	(2.07)**	0.637	(1.82)**
Attended local college	0.210	(0.42)	0.263	(0.53)	0.177	(0.35)
Husband received unemployment compensation in past 12 months	0.129	(0.26)	0.090	(0.18)	0.238	(0.48)
Husband's 1967 weeks worked	-0.018	(-1.58)*	-0.018	(-1.62)*	-0.015	(-1.34)*
Husband's education	0.070	(1.55)*	0.074	(1.62)*	0.075	(1.63)*
Husband's age	0.024	(0.81)	0.025	(0.86)	0.034	(1.16)
Local area unemployment rate	-0.003	(-0.39)	-0.004	(-0.60)	-0.003	(-0.41)
Constant	-1.431	(-1.41)*	-1.36	(-1.33)*	-1.860	(-1.80)**
Pseudo R^2[d]	0.052		0.060		0.076	
Chi-square	19.00***		21.88***		27.77***	
Number of respondents	528		528		528	

a Universe: White married respondents, same spouse present, neither respondent nor husband in school, between 1968 and 1973. Husbands not in the military service. Husbands over age 25 were not asked in the surveys if they were enrolled in school. Thus, there may be some husbands over age 25 enrolled in school in the sample.
Dependent variable: a dummy variable with the value "1" if the respondent reported that her SMSA or county of residence in 1968 differs from her residence in 1969, 1970, 1971, 1972 or 1973, "0" otherwise.

b All logit equations based on unweighted data.

c All variables are defined in the Glossary. See Appendix Table 6A.3 for summary statistics.

d Pseudo $R^2 = [1 - \exp\{Z(L_w - L_r)/T\}]/[1 - \exp\{Z(L_w - L_{max})/T\}]$ where L_w is the maximum of the log of the likelihood function using a constant, L_r is the maximum using all variables and L_{max} is the maximum possible.

* Significant at the 10 percent level.
** Significant at the 5 percent level.
*** Significant at the 1 percent level.

Table 6A.2 The Likelihood of Family Migration between 1968 and 1970 and between 1971 and 1973: Logit Results[a,b]

Independent variables[c]	1968-1970		1971-1973	
	Coefficient	(t-value)	Coefficient	(t-value)
Wife employed[d]	0.032	(0.14)	0.058	(0.23)
Unemployed[d]	0.487	(1.12)	0.968	(2.17)**
Received unemployment compensation in past 12 months[e]	-1.449	(-1.40)*	-1.19	(-1.51)*
Attended nonlocal college	0.820	(2.39)***	0.511	(1.24)
Attended local college	-0.021	(-0.04)	-0.306	(-0.62)
Husband's weeks worked over past year	-0.021	(-1.92)**	-0.029	(-2.78)***
Husband received unemployment compensation in past 12 months[e]	-0.422	(-0.75)	-0.766	(-1.59)*
Husband's education	0.001	(0.02)	0.126	(2.03)**
Husband's age	0.011	(0.40)	-0.024	(-0.56)
Local area unemployment rate	-0.003	(-0.38)	0.006	(0.92)
Constant	-0.914	(-0.91)	-1.614	(-1.16)
Pseudo R^{2f}	0.042		0.087	
Chi-square	16.30***		28.52***	
Number of respondents	650		534	

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a Universe: The universe for the 1968 to 1970 sample consists of young wives (age 17 to 24) whose spouses were present and not in the military service in all survey years (1968 to 1970). Husbands over age 25 were not asked in the surveys if they were enrolled in school. Thus, there may be some husbands over age 25 enrolled in school in the sample. In addition, both husband and wife may not be enrolled in school at any survey date (1968 to 1970). The 1971 to 1973 universe is similarly defined for the 1971 to 1973 period. Dependent variables: For the 1968 to 1970 sample, the dependent variable equals "1" if the respondent reports that her 1968 SMSA or county of residence differs from her 1969 or 1970 residence. The dependent variable for the 1971-1973 period is similarly defined.

b All logit equations based on unweighted data.

c All variables are defined in the Glossary. See Appendix Table 6A.3 for summary statistics.

d The variables refer to the 1968 (1971) survey date for the 1968 to 1970 (1971 to 1973) sample.

e Over the 12 month period prior to the 1968 (1971) survey date for the 1968-1970 (1971-1973) time span.

f Pseudo $R^2 = [1 - \exp\{Z(L_w - L_r)/T\}]/[1 - \exp\{Z(L_w - L_{max})/T\}]$ where L_w is the maximum of the log of the likelihood function using a constant, L_r is the maximum using all variables and L_{max} is the maximum possible.

* Significant at the 10 percent level.

** Significant at the 5 percent level.

*** Significant at the 1 percent level.

Table 6A.3 Summary Statistics for Determinants of Family Migration Equations (Appendix Tables 6A.1 and 6A.2)

Variables[a]	1968-1973 sample				1968-1970 sample		1971-1973 sample	
	Nonmigrants		Migrants					
	Mean	Standard deviation	Mean	Standard deviation	Mean	Standard deviation	Mean	Standard deviation
Employed	.42	.49	.38	.49	.41	.49	.41	.49
Weeks worked[b]	21.6	21.8	18.7	20.0	20.8	21.4	21.3	21.9
Tenure (in months)	10.8	20.0	6.6	15.5	9.4	18.9	10.4	53.3
Unemployed	.06	.23	.06	.24	.06	.23	.06	.24
Received unemployment compensation[b]	.04	.20	.03	.18	.04	.18	.05	.22
Attended nonlocal college	.09	.28	.17	.37	.10	.29	.09	.28
Attended local college	.04	.21	.05	.22	.05	.22	.07	.26
Respondent's income[b]	1590	2213	1282	2047				
Husband received unemployment compensation[b]	.04	.21	.04	.21	.05	.22	.09	.29
Husband's weeks worked[b]	49.3	7.8	47.9	9.5	48.4	8.8	46.9	10.3
Husband's education	11.7	2.1	12.3	3.1	11.6	2.6	12.0	2.3
Husband's age	25.1	3.6	25.4	3.8	25.1	3.9	24.3	3.0
Husband's income[b]	5606	2678	5572	3183				
Local area unemployment rate	3.8	.15	3.9	.15	3.9	.16	6.3	.19
Migration rate (dependent variable)					.16	.37	.17	.38
Number of respondents	386		142		650		534	

[a] The variables refer to the 1968 (1971) survey date for the 1968-1973 and 1968-1970 (1971-1973) samples. All variables are defined in the Glossary.

[b] Over the twelve month period prior to the 1968 (1971) survey date for the 1968-1970 and 1968-1973 (1971-1973) time spans.

Table 6A.4 Percentage Whose Postcollege Residence Is Different from High School Residence, by Residence at Age 14, College Location and Marital Status[a]

Residence at age 14 and college location[b]	Number of respondents	Percentage with different high school and postcollege residences			
		2 years after college[c]		In 1968[d]	
		Married	Never married	Married	Never married
All areas					
Local	223	19	9	29	16
Nonlocal	414	37	22	68	44
Rural, town, city under 25,000					
Local	76	14	6	39	33
Nonlocal	250	36	30	71	45
City over 25,000					
Local	147	21	10	23	9
Nonlocal	164	39	11	61	43

[a] Universe consists of white respondents who attended college. Based on unweighted data.

[b] Relative to parents' residence.

[c] Refers to women who last attended college between 1968 and 1971.

[d] Refers to women who last attended college before 1968.

Table 6A.5 Change in Husband's and Respondent's Labor Market Earnings between 1969 and 1973, by Respondent's Marital Status and Year of Migration: Regression Results[a]

Independent variables[b]	Change in husband's earnings[c,d]				Change in wife's earnings[d,e]				Change in single woman's earnings[f]	
	Coeff.	(t-value)	Coeff.	(t-value)	Coeff.	(t-value)	Coeff.	(t-value)	Coeff.	(t-value)
Education	419	(6.53)***	416	(6.48)***	-111	(- 1.93)**	-111	(- 1.91)**	214	(3.60)***
Age, 1969	14	(0.33)	10	(0.25)	-70	(- 1.38)*	-70	(- 1.38)*	-104	(-1.20)
Earnings, 1969[a]	-0.24	(-3.99)***	-0.24	(-3.89)***	-0.56	(-12.12)***	-0.56	(-11.99)***	-0.28	(-2.65)***
Migration between 1969 and 1972 surveys	324	(0.83)			-515	(- 2.02)**			1218	(1.96)**
Migration between 1969 and 1971 surveys			770	(1.51)*			-405	(- 1.20)		
Migration between 1971 and 1972 surveys			89	(0.11)			-710	(- 1.28)		
Multiple migrants			-357	(-0.52)			-594	(- 1.31)*		
Constant	-1829	(-1.43)*	-1751	(-1.37)*	3456	(2.96)***	3451	(2.94)***	1621	(0.96)
R^2 (adjusted)	.109		.109		.338		.335		.131	
F-ratio	11.93***		8.28***		46.44***		30.86***		4.98***	
Number of respondents	357		357		357		357		107	

a 1969 (1973) earnings are defined as earnings over the 12 month period preceding the 1969 (1973) survey date.

b All variables are defined in the Glossary. See Appendix Table 6A.9 for summary statistics.

c Husband's education and age and husband's 1969 earnings are held constant.

d Universe: White respondents, married, same spouse present, neither wife nor husband enrolled in school, all survey years (1968 to 1973). Respondents had lived in their 1969 SMSA or county of residence at least two years and their husbands worked full time in 1968 and 1973. Husbands over age 25 were not asked in the surveys if they were currently enrolled in school. Thus, there may be some husbands over age 25 enrolled in school in the sample. Husbands were not in military service.

e Wife's education and age and wife's 1969 earnings are held constant.

f Universe: White respondents, never married, not enrolled in school in any survey year. Respondents had lived in 1969 SMSA or county of residence at least two years.

* Significant at the 10 percent level.

** Significant at the 5 percent level.

*** Significant at the 1 percent level.

Table 6A.6 Change in Family Earnings 1969 to 1973, by Year of Migration on Husband's and Wife's Variables: Regression Results[a,b]

Independent variables[c]	Husband's variables				Wife's variables			
	Coeff.	(t-value)	Coeff.	(t-value)	Coeff.	(t-value)	Coeff.	(t-value)
Education	342	(4.71)***	335	(4.61)***	244	(2.41)***	237	(2.34)***
Age, 1969	78	(1.71)	73	(1.61)	118	(1.35)	113	(1.29)
Earnings, 1969[a]	-0.41	(-7.53)***	-0.41	(-7.31)***	-0.37	(-6.63)***	-0.36	(-6.42)***
Migration between 1969 and 1972 surveys	-106	(-0.25)			66	(0.15)		
Migration between 1969 and 1971 surveys			413	(0.72)			629	(1.09)
Migration between 1971 and 1972 surveys			-308	(-0.33)			-125	(-0.13)
Multiple migrants			-935	(-1.23)			-870	(-1.12)
Constant	-915	(-0.64)	-812	(-0.57)	-808	(-0.40)	-700	(-0.35)
R^2 (adjusted)	.136		.136		.101		.103	
F-ratio	14.97***		10.35***		11.03***		7.80***	
Number of respondents	357		357		357		357	

a 1969 (1973) earnings are defined as earnings over the 12 month period preceding the 1969 (1973) survey date.

b Universe: White respondents, married, same spouse present, neither wife nor husband enrolled in school, all survey years (1968 to 1973). Respondents had lived in their 1969 SMSA or county of residence at least two years and their husbands worked fulltime in 1968 to 1973. Husbands over age 25 were not asked in the surveys if they were currently enrolled in school. Thus, there may be some husbands over age 25 enrolled in school in the sample. Husbands were not in military service.

c All variables are defined in the Glossary. See Appendix Table 6A.9 for summary statistics.

*** Significant at the 1 percent level.

Table 6A.7 Change in Husband's, Wife's and Family's Earnings, by Reason for Migration: Regression Results[a,b]

Independent variables[c]	Change in husband's earnings		Change in wife's earnings		Change in family earnings			
	Coeff.	(t-value)	Coeff.	(t-value)	Coeff.[d]	(t-value)	Coeff.[e]	(t-value)
Education	407	(6.33)***	-115	(- 1.99)***	323	(4.44)***	214	(2.13)**
Age, 1969	19	(0.46)	-66	(- 1.30)	84	(1.86)**	158	(1.79)**
Earnings, 1969[a]	-0.24	(-3.94)***	-0.55	(-12.00)***	-0.40	(-7.35)***	-0.36	(6.54)**
Migrated for economic reasons	1064	(1.85)**	-367	(- 0.96)	971	(1.51)*	1409	(2.17)**
Migrated for noneconomic reasons	-355	(-0.77)	-552	(- 1.80)**	-1008	(-1.97)**	-1049	(-2.01)**
Constant	-1836	(-1.44)*	3424	(2.92)***	-916	(-0.65)	-1377	(-0.69)
R^2 (adjusted)	.115		.337		.147		.119	
F-ratio	10.23***		37.18***		13.28***		10.61***	
Number of respondents	357		357		357		357	

a 1969 (1973) earnings are defined as earnings over the 12 month period preceding the 1969 (1973) survey date.

b Universe: White respondents, married, same spouse present, neither wife nor husband enrolled in school all survey years (1968 to 1973). Respondents had lived in their 1969 SMSA or county of residence at least two years and their husbands worked full time in 1968 and 1973. Husbands over age 25 were not asked in the surveys if they were currently enrolled in school. Thus, there may be some husbands over age 25 enrolled in school in the sample. Husbands were not in the military.

c All variables are defined in the Glossary. See Appendix Table 6A.9 for summary statistics.

d Independent variables refer to husband's education, age, and earnings.

e Independent variables refer to wife's education, age, and earnings.

* Significant at the 10 percent level.

** Significant at the 5 percent level.

*** Significant at the 1 percent level.

Table 6A.8 Change in Weeks Worked by Wife 1969 to 1973, by Year of Migration and Reason for Migration: Regression Results[a,b]

Independent variables[c]	Equation (1)		Equation (2)		Equation (3)	
	Coeff.	(t-value)	Coeff.	(t-value)	Coeff.	(t-value)
Migrant between 1969 and 1972 surveys	-6.59	(- 2.37)***				
Migrant between 1969 and 1971 surveys			- 4.98	(- 1.35)*		
Migrant between 1971 and 1972 survyes			-10.63	(- 1.76)**		
Multiple migrants			- 6.93	(- 1.40)*		
Migrated for economic reasons					-4.05	(- 0.98)
Migrated for noneconomic reasons					-6.36	(- 1.92)**
Weeks worked, 1969[b]	-0.53	(-11.30)***	- 0.53	(-11.23)***	-0.53	(-11.19)***
Constant	8.77	(6.04)***	8.77	(6.02)***	8.61	(5.95)***
R^2 (adjusted)	.267		.264		.263	
F-ratio	65.81***		32.95***		43.45***	
Number of respondents	357		357		357	

[a] Universe: White respondents, married, same spouse present, neither wife nor husband enrolled in school all survey years (1968 to 1973). Respondents had lived in their 1969 SMSA or county of residence at least two years and their husbands worked full time in 1968 and 1973. Husbands over age 25 were not asked in the surveys if they were currently enrolled in school. Thus, there may be some husbands over age 25 enrolled in school in the sample. Husbands were not in the military.

[b] 1969 (1973) weeks worked are defined as weeks worked over the twelve months preceding the 1969 (1973) survey date.

[c] All variables are defined in the Glossary. See Appendix Table 6A.9 for summary statistics.

* Significant at the 10 percent level.

** Significant at the 5 percent level.

*** Significant at the 1 percent level.

Table 6A.9 Summary Statistics for Change in Earnings and Wife's Weeks Worked Equations (Appendix Tables 6A.5 to 6A.8)[a]

Variables[b]	Mean	Standard deviation
Married women sample		
Husband's education	11.8	2.4
Husband's age	25.2	3.5
Husband's 1969 earnings	7111	2530
Change in husband's earnings (1969 to 1973)	1785	2770
Wife's education	11.6	1.7
Wife's age	22.0	1.9
Wife's 1969 earnings	1565	2081
Change in wife's earnings (1969 to 1973)	-320	2130
Wife's 1969 weeks worked	20.2	21.4
Change in wife's weeks worked (1969 to 1973)	-2.9	22.1
Family's 1969 earnings	8676	3110
Change in family earnings (1969 to 1973)	1465	3140
Migration between 1969 and 1972 surveys	.18	.36
Migration between 1969 and 1971 surveys	.08	.27
Migration between 1971 and 1972 surveys	.03	.17
Multiple migrants	.04	.20
Migrated for economic reasons	.06	.24
Migrated for noneconomic reasons	.10	.30
Number of respondents	357	
Single women sample		
Single women's education	11.8	1.6
Single women's age	20.4	2.2
Single women's 1969 earnings	3043	2217
Change in single women's earnings	1130	1919
Single migrants	.09	.28
Number of respondents	107	

[a] All monetary variables are in 1968 dollars.

[b] All variables are defined in the Glossary.

CHAPTER 7

MARITAL DISRUPTION: CAUSES AND CONSEQUENCES

Frank L. Mott and Sylvia F. Moore*

INTRODUCTION

In this volume, we have already highlighted a number of phenomena which reflect in major ways the changing status of women in American society. We have repeatedly demonstrated the increasing work commitment of women. It is clear that, for the young adult women, work is and will continue to be not an alternative to family and child raising but a complementary and essential component of contemporary family life styles.

Paralleling many fundamental changes in our society, the increasing work activity of women in some instances has perhaps been both a determinant and consequence of other social phenomena. The process of marital disruption is a case in point. The ability to find remunerative employment can certainly facilitate and perhaps increase the likelihood of a marital breakdown for some women. Thus work, or the potential of finding work, may play the dual role of affecting the probability of marital breakdown and of ameoliorating the economic traumas associated with the breakdown after it occurs.

The major objective of this chapter is to examine the association between work and this marital disruption process. Of course, this association cannot be analyzed in a vacuum. Thus, in examining the determinants of the marital disruption process, a wide range of other factors will be considered; when the consequences of a marital breakdown are analyzed, labor market activity will be juxtaposed against the needs of different subsets of women. Obviously, work is only one way of compensating for the loss of the husband's earnings and needs to be considered in conjunction with access to other income sources.

Recent years have witnessed a spiralling of the incidence of marital breakdown from what had been, historically, rather low and stable levels. During the period between 1900 and 1965, the divorce rate rose from 0.7 to 2.5 per 1,000 population.[1] However, during the following ten-year period the rate virtually doubled from 2.5 to 4.9 per thousand population.[2]

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*The authors wish to thank Dennis Grey for his outstanding research assistance in producing this chapter.

[1] Plateris (1973).

Perhaps the most dramatic changes in marital disruption patterns are occurring at the present time. There has been a dramatic increase in the proportion of marriages estimated to end in divorce among successive generations of contemporary women. The Census Bureau estimates that about one-third of the marriages of young women now between the ages of 25 and 34 will ultimately end in divorce as compared with about 20 percent for those who are presently in their fifties.[3] Indeed, during the short five-year period between 1968 and 1973, fully 14 percent of the married young women (12 percent of the white and 30 percent of the black women) in our nationally representative NLS sample had their marriages end either permanently through a divorce or at least temporarily through a separation. To the extent that these new higher levels of marital disruption may at least partially represent a break with traditional disruption patterns, this study may provide useful baseline data for interpreting several socioeconomic dimensions of contemporary marital trends.

It is evident that marital disruption is no longer a relatively rare phenomenon but, in reality, either affects or will affect a considerable proportion of women who are currently young adults. As such, there is a need for a clear definition of public policies with respect to income maintenance and employment assistance for this substantial group of women. However, the effective determination and implementation of any social policy requires information input, including analytical evidence concerning the sociodemographic makeup of the program group as well as quantitative indications of its economic status. A principal objective of this chapter is to provide some of this essential input.

Some Data and Analytical Constraints

Our sample of maritally disrupting women includes all women who either separate or divorce for the first time between 1968 and 1973.[4]

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[2] U.S. Department of Health, Education and Welfare (1977).

[3] U.S. Bureau of the Census (1976).

[4] There are 520 women who can be identified as having had a first marital disruption at some time during the five-year period. All of these women were either already married in 1968 or married at some time after that point but before the 1973 interview (see Appendix A for details concerning the "eligible for disruption" population). Of these 520, 38 are excluded from the analysis because they moved from a "never married" status in one survey to a "disrupted" status in the

Since the precise date of separation cannot be determined for most women, the "before" and "after" status will refer to the nearest interview date before and after the marital disruption. Throughout this study "T" will reference the last interview before the disruption, "T + 1," the first interview after the event, and "T - 1" and "T + 2," the immediately earlier and later interview dates.

In order to compare the characteristics of individuals in our sample whose marriages disrupted with a comparable group whose marriages remained intact, a "reference group" representing "nondisrupting counterparts" (to those whose marriages broke down) was constructed. In the most general terms, a woman was included in the reference group if she was in her first marriage at some point between 1968 and 1973 and the marriage did not break up during that period.[5]

In order to maximize our sample size we are examining the determinants and consequences of marital rather than the

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next, and no information exists with respect to the characteristics of their husbands. An additional 38 cases are excluded because the respondents were enrolled in school at the last survey date prior to their marital disruption, which makes information on their predisruption labor market activity and earnings less meaningful. Thus, the sample of disruptees used in the analysis numbers 449 (264 whites and 185 blacks).

It should be noted that women whose marital status was "separated" or "divorced" at the time of the first interview are excluded from the analysis, since we cannot specify when the disruption occurred or the characteristics of the women and her family in the predisruption period.

There are two types of cases that prevent the criteria for inclusion in our sample of disruptees from being applied with complete precision. First, women who separate and return to the same husband between two survey dates cannot be identified. Second, if a woman experienced a marital disruption prior to the 1968 interview but was once again in a "married-husband-present" status as of 1968, she would not be identifiable as a disruptee. To the extent that either of these cases exist, the women in question are classified among the nondisruptees.

[5] Since many women were eligible to be in the reference group at more than one survey date, the eligible respondents were randomly distributed across survey years in the same proportions as the disruptees were distributed. Further adjustments were made in the reference group consistent with the adjustment made in the disruptee population which excluded women who were never married at T but disrupted by T + 1. See Appendix A for details.

separate divorce or separation components. We feel that this is justified in most instances, as the short-term social and economic consequences of both events are similar, since in both cases the husband is absent from and no longer a member of the household. In the short run the determinants of marital breakdown should also be similar, regardless of whether the process results in a quick divorce or a more lingering separation process.

Given the nature of our sample, the perspective of this paper will be from the female side. That is, we will focus on why a woman separates from or is divorced from her husband and what the post-disruption consequences are for her and those living with her. Clearly, the husband's perspective might be quite different both in terms of the determinants and consequences of the marital disruption. While to some extent certain mirror images are implied, symmetry in all instances is not suggested.

Finally, the nature of the data limits and perhaps biases the focus of our research, particularly with regard to the interpretation of the determinants and consequences of the marital disruption. We are essentially measuring in a discrete way a process that is, in reality continuous. Thus, for example, the factors that we find to be significant "determinants" of marital disruption may well reflect precipitating events in the disruption process rather than true causes of disruption. As such, we are recording overt manifestations of a much more subtle process.

THE MARITAL DISRUPTION PROCESS

As a mechanism for understanding better the socioeconomic position of women from broken marriages, this section will examine some of the suggested motives for marital disruption. Subject to the constraints and limitations of our data set, we will test some of the traditional as well as more recent theoretical statements found in both the economic and sociological literature concerning the likelihood of marital disruption among women. As our sample represents a cross-section of young adult women, our results may be more broadly applicable and generalizable than those of other studies based on more limited samples.

The literature which focuses on the determinants of marital disruption has expanded greatly in recent years and has become increasingly interdisciplinary in nature. From the sociological perspective, the effects of background factors such as the socioeconomic status, education, and marital stability of parents in the promotion of marital stability of their children have been explored in some depth.[6]

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[6] See, for example, Carter and Glick (1970), Bumpass and Sweet (1975), and Cutright (1971) for discussions concerning the separate and interacting effects of social status and education, and Pope and

In general, studies have found inverse associations between the probability of marital disruption and background socioeconomic status variables and educational attainment. There is also some suggestion of a transmission of intergenerational marital stability, as some studies indicate that children of broken marriages are more likely to have their own marriages dissolve.

Demographers have noted that, in general, marriages undertaken at youthful ages, particularly those burdened by premaritally conceived children, tend to have less chance of success.[7] On the other hand, economists or those working primarily with economic variables have most recently been focusing on the various economic motivations for marital breakdown. These include such factors as the absolute level of the family's income prior to the marital disruption, the relative position of the family is compared with peers and the level of the woman's earnings preceding the disruption event.[8]

It is apparent that many of the factors which traditionally have been considered by researchers from different disciplines in reality overlap in the sense of being interdependent in origin and interactive in their effects on marital breakdown and its consequences. Indeed, a principal objective of the multivariate perspective of this research is to suggest which of a myriad of background factors may be the truly significant determinants of the disruption process.

Because the major purpose of this study is to examine the relevance of work activity and concomitant economic factors in the disruption process, we will concentrate more extensively on the background factors explored in the economics literature. We will attempt to distinguish those economic factors with are felt to contribute to marital disintegration from those economic factors hypothesized to "cement" a marriage. Ross and Sawhill term these forces "independence" and "income" effects.[9] From an economic perspective, factors which would promote a feeling of economic independence in a woman, such as high wage employment or access to unearned income independent of her husband, might, everything else being equal, provide encouragement for a woman to leave a marriage. In contrast, factors which encourage a wife's dependence on her husband, such as his high earnings or substantial personal unearned income, are "income effects" which would normally be associated with below average probabilities of marital breakdown.

Mueller (1975) for a review of the literature on intergenerational instability.

[7] See, for example, Glick and Norton (1971) and Furstenberg (1976).

[8] See, for example, Cutright (1971); Becker et al. (1976), pp. 31-32; and Ross and Sawhill (1975).

[9] Ross and Sawhill (1975).

In addition to these absolute income and earnings concepts, relative concepts also appear in the economics literature, such as the relationship of the wife's actual or expected earnings[10] to changes in the husband's earnings over time[11] and the ratio of the husband's actual to his expected earnings.[12] Relatively high husband's earnings in comparison with (1) past periods, (2) his "expected" earnings and (3) his wife's earnings would be expected to be associated with a below average likelihood of marital disruption.

An examination of Table 7.1 suggests that there are indeed major socioeconomic differences between maritally disrupting and nondisrupting ("reference") families. Women in stable (nondisrupting) families had higher family income, were less likely to be receiving public assistance, and were better educated. From a relative perspective, their families were more likely to have improved their financial situation during the preceding year (between T - 1 and T). Aside from the direct economic factors, women from stable backgrounds (living with both parents at age 14), living in smaller families (with fewer children of their own) also had lower disruption probabilities. Similar patterns are evidenced for both black and white women. However, blacks, regardless of whether they disrupted or remained married, had lower levels of economic well-being than whites.

Some Multivariate Results

In order to estimate the independent influence of the various socioeconomic and demographic factors on the probability of marital disruption, a multivariate model incorporating a variety of relevant variables was constructed. The multivariate technique employed is multiple classification analysis (MCA), a form of regression analysis using dummy variables. With MCA we can determine for relevant categories of a certain independent variable what proportion of young women subsequently experienced marital disruption, assuming that members of that category have an "average value" on all other variables included in the analysis. Differences in the proportions disrupted among the variable's categories are interpreted as the "pure" association of that variable with the probability of undergoing marital disruption.

The dependent variable is dichotomous, with a value of "1" given to those respondents whose marriages first disrupted between 1968 and

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[10] Cherlin (1976).

[11] Ross and Sawhill (1975).

[12] Ibid.

Table 7.1 Characteristics of Marital Disruption and Reference Groups at Time T, by Race

Characteristics	Reference group		Marital disruptees	
	Whites	Blacks	Whites	Blacks
Work-related				
Labor force participation rate	56.0	58.5	54.9	56.4
Unemployment rate	10.8	17.9	12.5	29.4
Median Duncan Index of current or last job	44.2	22.4	37.9	19.1
Percent taking training in past year	16.9	17.4	16.3	13.8
Percent (of employed) employed full time	69.3	75.0	75.5	88.7
Husband's weeks worked in past year (percent with less than 26 weeks)	9.5	4.8	8.5	9.1
Mean hourly wage of current or or last job	2.03	1.71	1.79	1.64
Income-asset				
Median family income	7,797	6,296	7,095	5,700
Median respondent's earnings	1,169	844	833	982
Mean family income	8,232	6,890	7,522	6,251
Mean respondent's earnings	1,982	1,608	1,708	1,594
Percent with liabilities (excl. 30-day charge)	43.0	49.3	59.0	46.9
Percent owning own home	26.9	17.6	32.6	19.7
Percent with improving finances between T - 1 and T	57.8	54.3	48.8	32.4
Percent with family member receiving public asst.	2.5	7.7	5.4	17.3
Family-related				
Mean family size	2.97	4.14	3.25	4.54
Percent with own children	48.6	68.3	61.4	83.4
Duration of marriage (percent married less than 3.5 years)	69.5	73.7	53.1	55.1
Personal				
Percent with less than 12 years of school	17.8	35.3	38.8	56.4
Percent who lived with both parents at age 14	85.1	61.4	75.6	51.3
Median age	22.3	22.1	21.7	21.8

1973 and a "0" if the respondent was at some point during this period eligible to disrupt but did not do so (our previously defined "reference" group).

The full multivariate model which estimates the probability of marital disruption for black and white women includes a range of socioeconomic and demographic variables which were felt to be significant predictors of marital disruption. (See Appendix Table 7A.1 for the complete model and Appendix B for specification of the variables.) The proxies for the "independence effect" are the woman's potential wage (a constructed variable which estimates a woman's potential hourly earnings based on a number of her personal characteristics[13]); her access to welfare (primarily AFDC) payments; her labor market experience as measured by the number of years she has worked six months or more since leaving school; and the number of hours she worked during the survey week at time T.

While none of these variables reaches significance as a predictor of marital breakdown for both races, there are several variables which seem to affect one race, but not the other (Table 7.2). Potential wage, hours worked in the survey week, and years of work experience are significant predictors of marital disruption for white women but are not for blacks.[14] Of the three, only the work experience variable approaches significance for the black respondents. Conversely, only accessibility to welfare attains a high level of significance for the black women; and, although it is not significant for whites, it does operate in the right direction. In general, empirical evidence consistent with the hypothesized "independence effect" is fairly significant for whites but marginal at best for black respondents.

The primary "income effect" variable in our model is husband's earnings; presumably, higher earnings by the husband, everything else being equal, should be associated with lower levels of marital

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[13] Actual hourly earnings are hypothesized to be a function of the respondent's education, work experience, South-nonSouth residence, SMSA/nonSMSA, and job tenure. From these estimates for women who were working, we then estimated values for nonworkers, assuming them to have similar wage structure. See Appendix B for details.

[14] While there obviously is a certain built-in collinearity between potential wage and educational attainment, and since education an input into the wage equation, the inclusion of both in the same model in no major way alters the results. For both whites and blacks, the significance level (i.e., at .01, .05 or .10) of both potential wage and education is virtually identical whether or not both variables, just education, or just potential wage is in the model.

Table 7.2 Unadjusted and Adjusted Proportions of Respondents Experiencing a Marital Disruption between 1968 and 1973, by Race and Selected Economic Characteristics: Multiple Classification Analysis[a]

Selected economic characteristics	Number respondents	Unadjusted proportion	Adjusted proportion	Significance level
	WHITES			
Accessibility of welfare in state				
Low access - low benefits	551	.14	.11	
High access - high benefits	812	.12	.14	
Other	667	.12	.12	
Debt accumulation				*
No debt	577	.09	.11	
Some debt	604	.15	.15	
Not ascertainable	849	.13	.12	
Work experience				***
0-2 years	1,202	.12	.11	
3 or more years	828	.13	.15	
Potential wage				**
$1.50 or less	658	.18	.16	
$1.51 - 1.99	643	.11	.11	
$2.00 or more	729	.10	.11	
Change in financial position T - 1 to T				
Better	992	.11	.11	
Same	606	.15	.14	
Worse	182	.14	.14	
Not ascertainable	250	.14	.13	
Hours worked during survey week				
None reported	1,076	.13	.10	***
1-34	283	.11	.13	
35 or more	671	.13	.16	
Grand mean	2,030	.13	.13	***

(Table continued on next page.)

Table 7.2 Continued

Selected economic characteristics	Number of respondents	Unadjusted proportion	Adjusted proportion	Significance level
	BLACKS			
Accessibility of welfare in state				**
Low access - low benefits	331	.28	.27	
High access - high benefits	165	.34	.35	
Other	96	.37	.40	
Debt accumulation				
No debt	167	.28	.31	
Some debt	198	.30	.30	
Not ascertainable	227	.35	.33	
Work experience				
0-2 years	394	.32	.29	
3 or more years	198	.30	.35	
Potential wage				
$1.50 or less	271	.32	.29	
$1.51 - 1.99	207	.36	.35	
$2.00 or more	114	.22	.30	
Change in financial position T - 1 to T				***
Better	241	.20	.24	
Same	220	.36	.33	
Worse	61	.39	.35	
Not ascertainable	70	.47	.48	
Hours worked during survey week				
None reported	347	.36	.33	
1-34	59	.18	.22	
35 or more	186	.27	.31	
Grand mean	592	.31	.31	***

a Respondents 14 to 24 years of age in 1968 who have either experienced a first disruption or who are included in the reference group. In each case, these proportions have been adjusted for all the variables in Appendix Table 7A.1. For a complete description of all the variables not specified in Appendix Table 7A.1, see Appendix B.

* Significant at the 10 percent level.

** Significant at the 5 percent level.

*** Sigifnicant at the 1 percent level.

disruption. In addition, lower family debt levels would also be expected to be associated with more stable marriages. Finally, in a relative context, one would expect greater marital stability in those marriages where the family financial status has been stable or improving.

There was no substantial association between husband's earnings and marital stability for either blacks or whites (Table 7A.1). For whites, however, having no accumulated debts was associated with lower levels of marital disruption. Finally, recent improvements in financial position (between T - 1 and T) were associated with lower probabilities of marital disruption for both races. However, the association was significant only for blacks. This suggests that to the extent that economic factors are relevant, concepts which measure changes in a family's economic status relative to long-term norms appear to be of greater importance than status variables referencing one point in time.

In contrast to the only moderate significance of the economic variables, demographic and social variables associated with the woman's background are important predictors of marital breakdown. For both black and white women, the negative association between education and marital disruption probabilities is highly significant (Table 7.3). The fact that this inverse relationship persists even after controlling for the economic correlates of educational attainment indicates that higher levels of schooling bear an independent relationship to a propensity for marital stability.

Consistent with the literature, being raised in a broken home is found to be positively associated with marital disruption even with all the other socioeconomic controls in the model. Thus, there may be certain social-psychological syndromes among both blacks and whites which tend to pass on a "propensity to disrupt" from one generation to the next.

It is also of some interest to note that for both black and white women there remains a strong inverse association between age and marital disruption, even after controlling for all the other factors which are known to be associated with aging per se. Indeed, the data suggest that any institutional means which can be used to raise significantly the age of marriage could well lead to major declines in marital disruption rates, even if no other characteristics relating to the youth were altered. The adjusted disruption rates for white women under the age of 20 are 19 percent compared with 14 percent for those aged 20 to 21, 12 percent for 22 to 23 year olds and 9 percent for those women 24 years of age and older. Parallel declines are evidenced for black women.

In addition, after removing the effect of the other socioeconomic and demographic factors, the highest marital disruption probabilities

Table 7.3 Unadjusted and Adjusted Proportions of Respondents Experiencing a Marital Disruption between 1968 and 1973, by Race and Selected Sociodemographic Characteristics: Multiple Classification Analysis[a]

Selected sociodemographic characteristics	Number of respondents	Unadjusted proportion	Adjusted proportion	Significance level
	WHITES			
Respondent's education				***
0 - 11 years	444	.24	.20	
12 years	1,093	.11	.11	
13 or more years	493	.06	.10	
Residence in SMSA				***
Yes	1,239	.13	.14	
No	791	.11	.10	
Both parents present at age 14				**
Yes	1,698	.11	.12	
No	332	.19	.16	
Age of respondent				***
15-19	316	.18	.19	
20-21	483	.13	.14	
22-23	576	.11	.12	
24 or older	655	.10	.09	
Duration of marriage				***
0 - 1½ years	948	.09	.08	
2 - 2½ years	238	.17	.16	
3 - 5 years	525	.17	.18	
5½ or more years	319	.13	.15	
Ease of divorce: divorce rate in state				***
0 - 2.6	484	.09	.10	
2.7 - 4.1	535	.10	.10	
4.2 - 6.7	579	.15	.14	
6.8 or higher	181	.20	.20	
Not ascertainable	251	.12	.15	
Grand mean	2,030	.13	.13	***

(Table continued on next page.)

Table 7.3 Continued

Selected sociodemographic characteristics	Number of respondents	Unadjusted proportion	Adjusted proportion	Significance level
	BLACKS			
Respondent's education				**
0-11 years	254	.41	.38	
12 years	264	.26	.26	
13 or more years	74	.19	.28	
Residence in SMSA				
Yes	391	.31	.32	
No	201	.32	.29	
Both parents present at age 14				
Yes	342	.27	.29	
No	250	.37	.34	
Age of respondent				**
15-19	124	.37	.42	
20-21	143	.30	.31	
22-23	158	.27	.28	
24 or older	167	.32	.27	
Duration of marriage				***
0 - 1½ years	305	.21	.22	
2 - 2½ years	73	.38	.35	
3 - 5 years	136	.47	.47	
5½ or more years	78	.31	.34	
Ease of divorce: divorce rate in state				
0 - 2.6	84	.37	.32	
2.7 - 4.1	228	.33	.36	
4.2 - 6.7	177	.28	.28	
6.8 or higher	65	.29	.27	
Not ascertainable	38	.29	.30	
Grand mean	592	.31	.31	***

a Respondents 14 to 24 years of age in 1968 who have either experienced a first disruption or who are included in the reference group. In each case, these proportions have been adjusted for all of the variables in Appendix Table 7A.1. For a complete description of all the variables not specified in Appendix Table 7A.1, see Appendix B.

** Significant at the 5 percent level.

*** Significant at the 1 percent level.

are evidenced by women whose marriages are of intermediate length.[15] Apparently, separation and divorce are not so prevalent during the first two years of marriage as in the immediately subsequent years. Also, as the marriage enters the fifth and sixth years, a pattern of decline in disruption probabilities appears, at least for this cohort of younger women.

From a demographic perspective, there is no evidence of any pattern of association between childbearing and marital disruption, after controlling for related factors such as education, age, and duration of marriage. Thus, the data suggest that it is not the presence or absence of a child per se that is concomitant with marital breakdown. Rather, other factors associated with the respondent and the marriage which are in turn determinants of childbearing are more likely to be the root causes.

As a final note, there is a definite independent positive association between the probability of a white woman's marital disruption and the ease with which one can obtain a divorce in a state. White respondents have about a 10 percent adjusted disruption probability in states where divorce rates are low, 14 percent where they are moderate, and a 21 percent adjusted probability in states where rates are the highest. Thus, the data support the notion (for white women, at least) that institutional variations in divorce laws do play a major independent role in determining divorce levels.[16]

From an overall viewpoint, it seems that direct economic factors are of somewhat less importance as determinants of a marital breakdown then are other socioeconomic background and demographic factors. Of

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[15] The disruption probabilities for the newly married group are slightly artificially depressed since those women who are never married at time T but maritally disrupted by time T + 1 are excluded from the model. However, even when these women are included, their disruption rares are significantly below those whose marriages were of an intermediate length.

[16] This variation in disruption probabilities by state divorce rates may be seen to be independent of urban-rural variations among states since a control for this factor is included in the model. It is of some interest to note that white individuals living in metropolitan areas are significantly more likely to have their marriage disrupt. Also, while acknowledging a certain circularity between state divorce rates and marital disruption probabilities, the authors feel that the use of the variable is justified as representing, at least partially, differential access to divorce. This is because many of the individual characteristics which might otherwise affect variations in divorce probabilities are already controlled for in the model.

[illegible]

The short-term social and economic consequences of a marital disruption are visibly manifested in a number of ways. The focus of this section will be on measuring the extent to which a woman is financially disadvantaged by the loss of her husband's income, the ways in which she seeks to alleviate this disadvantage, and how successful she is in doing so.

The Transition Process: The Income Factor

From an economic perspective, changes in family income levels represent perhaps the most overt manifestation of disadvantage associated with marital disruption. While the numbers vary considerably, depending on whether one uses median or mean income estimates, the basic patterns depicted are similar.[17] An examination of Table 7.4 indicates clearly the sharp decline in family income associated with the disruption process. When one decomposes the changes in family income, it becomes evident that all of the decline reflects the loss of the husband's income, primarily his earnings. Also, from a total family income perspective, one can see that the woman's earnings show an increase between the pre- and postdisruption periods, thus compensating to varying degrees for the loss of husband's income.

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[17] The skewness of the income and earnings distributions results in major discrepancies between the median and mean earnings and income estimates. A relatively small number of high income individuals or families can significantly raise mean levels without altering medians. This is particularly true when one is focusing on a group where a large proportion is at low income levels. Median earnings estimates have certain advantages when analyzing data for lower income groups since the "median" estimates more closely approximate earnings for the average individual. However, mean estimates are more functional when one wishes to examine the components of the income since the mean components are by definition, additive; whereas, the median components need not add to the total. For this reason, mean estimates are used in this study where components of income are being examined and medians are used where only overall comparisons are being made. For the interested reader, the mean and median estimates for the data in Table 7.4 are presented side by side in Appendix Table 7A.2.

Table 7.4 Mean Income Characteristics of Respondents Experiencing a Marital Disruption at Time T, T + 1 and T + 2, by Race[a,b]

Mean income characteristics	WHITES			BLACKS		
	T	T + 1	T + 2	T	T + 1	T + 2
Mean family income	7,552	5,197	5,983	6,251	3,967	3,794
Mean family income less respondent's earnings	5,845	2,709	2,855	4,658	2,344	1,756
Mean respondent's earnings	1,708	2,489	3,128	1,594	1,622	2,037
Mean per capita income per family member	2,688	2,124	2,656	1,721	1,176	1,024
Mean family size	2.8	2.4	2.3	3.6	3.4	3.7
Number of respondents	229	232	126	166	173	106

[a] Data for T + 1 and T + 2 are limited to those marital disruptees who have not remarried or reconciled with their husbands as of those points in time.

[b] All income and earnings estimates are in 1967 dollars.

Overall, for whites between time T and T + 2 there is a decline of $2,990 (in 1967 dollars) in total income less respondent's earnings. This decline is partially compensated for by an increase of $1,420 in the respondent's earnings. Thus, the white women has compensated for 47 percent of the income loss through increases in her work activity. For blacks, the analogous numbers are -$2,902 and +$443, so the average black woman replaces only 15 percent of the income loss.

While the rather sharp contrast between whites and blacks suggested by the above numbers accurately depicts the relative positions of white and black women, from the perspective of individuals within the family, it is perhaps more meaningful to analyze the forgoing income changes in per capita terms. If one adjusts for changes in family size between the two points in time (T to T + 2), per capita income for blacks declines from $1,721 to $1,024, while there is no significant change in per capita income in the white families. From a per capita perspective, the white woman, by increasing both her own earnings and her access to other sources of unearned income, largely replaces the loss of her husband's earnings.[18] Of course, while her family per capita earnings may be up to their previous level, the larger average child care and other associated costs (reflecting in part the need for many of the women to enter the labor force) may well leave her in worse financial condition than she had been prior to the disruption.[19] It is also of some importance to note that part of this white woman's ability to maintain her family's per capita income reflects the sharp decline in the mean white family size (reflecting the loss of the husband). The black woman is more likely to be joined by or to form into a family network after the disruption. This extended family certainly alleviates many of the social traumas associated with the marital disruption but apparently is unable to augment the family income to any significant extent.

Changes in Labor Force Participation Levels

The above data suggest that employment is one major means by which women whose marriages disintegrate compensate for the loss of husbands' earnings. Figure 7.1 indicates the trend of participation levels between time T - 1 and T + 2 for black and white maritally disrupted women both with and without children. For both black and white women without children, labor force participation levels rapidly approach (and for white women, surpass) the labor force participation levels of never-married women at approximately the same ages. The participation levels for women with children show large increases, but these levels predictably remain well below those of their childless counterparts.

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[18] A cautionary note regarding these racial differences in income is in order. To the extent that welfare payments and/or income from "other" family members may represent more important income sources in maritally disrupted black households, differences between black and white incomes may be overstated due to the possible understatement of these two income sources.

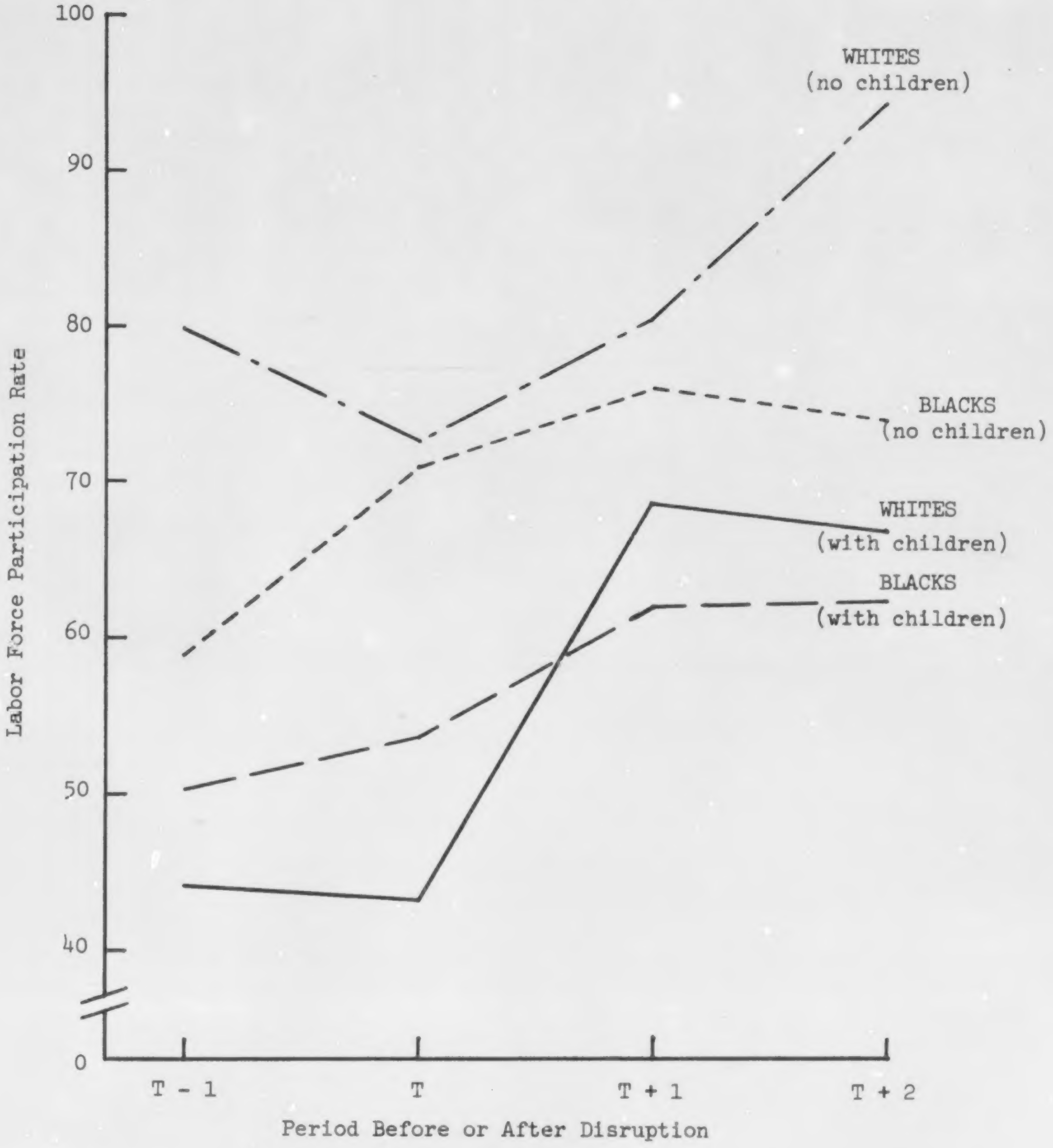
[19] To the extent that white women are more likely to utilize more family child care sources and thus have on average higher child care costs than black women, the above statistics may overstate somewhat the per capita income differences between black and white families. See Shortlidge and Brito (1976).

At time T about 12 percent of white and 29 percent of black disruptees in the labor force were unable to find jobs (Table 7.1). As may be noted from Table 7.5, whites, regardless of their work status prior to the marital disruption, were more likely to be employed at T + 1 than were blacks. In particular, blacks in the labor force at T apparently had much greater difficulty in maintaining that labor force attachment than comparable white workers.

In order to examine more carefully whether or not the prospective marital disruption event is associated with labor force participation levels prior to the disruption, independent of all other factors, a multivariate analysis was performed using labor force participation at time T as the dependent variable. This labor supply model included the standard explanatory variables and, in addition, a variable indicating whether or not the women would disrupt during the following year. (See Appendix Table 7A.3 for the complete model.) White women whose marriages were to break up during the following year were indeed significantly more likely to be in the labor force. During the survey week before the disruption their adjusted labor force participation rate was 62 percent compared with 55 percent for their nondisrupting counterparts. There were no significant differences, however, between the two black groups. Thus, for white women at least, there is some evidence that anticipatory labor force behavior may be occurring; that is, some women, in anticipation of a forthcoming marital breakup, may be entering the labor force. The above results are also consistent with our earlier hypothesized independence effect, whereby women with a closer attachment to the labor force would be expected to have higher marital disruption probabilities.

A comparison of the labor force transition between T and T + 1 for the reference group and the disruptees pinpoints a major behavioral variation between these two groups, as seen in Table 7.5. There are some differences in behavior at T + 1 between those in the reference group and those marital disruptees who were in the labor force at time T (primarily a somewhat greater movement out of the labor force by whites in the reference group). However, the major variations are between marital disruptees and those in the reference group who were not in the labor force at T. About 56 percent of the white disruptees who were not in the labor force at T were either employed or unemployed at T + 1, compared with 23 percent for the comparable reference group. The corresponding percentages for the blacks were 48 and 30.

Figure 7.1 Labor Force Participation Rate of Respondents Experiencing Marital Disruption at T - 1, T, T + 1, and T + 2, by Race and Presence of Children



NOTE: Data for T + 1 and T + 2 are limited to marital disruptees who have not remarried or reconciled with spouse.

Table 7.5 Labor Force Status for Marital Disruption and Reference Groups at T + 1, by Race and Labor Force Status at T

Labor force status at T	Number of respondents	Labor force status at T + 1		
		Labor force participation	Unemployment rate	Percent employed
	WHITES			
Marital disruptees				
In labor force	145	84.5	6.3	79.2
Not in labor force	119	55.7	24.0	42.2
Reference group				
In labor force	1,043	74.6	6.3	69.9
Not in labor force	819	23.4	18.9	18.9
	BLACKS			
Marital disruptees				
In labor force	102	76.8	17.2	63.3
Not in labor force	83	47.6	23.3	36.1
Reference group				
In labor force	257	75.1	10.5	67.4
Not in labor force	186	30.0	25.3	22.5

Overall, about 81 percent of those marital disruptees employed at T + 1 were working full time--at least 35 hours per week. This figure compares with only 68 percent for those in the reference group who were employed at the same point. Thus, the greater need for income by the average disruptee is translated not only into higher levels of labor force participation, but into a lengthier work week as well. This result is particularly interesting, given the fact that the average maritally disrupted woman is more likely to have children than the comparable woman still in an intact marriage. Indeed, 83 percent of the black disruptees and 61 percent of the white had at least one child in their household at T compared with 68 percent for the black and 49 percent for the white reference group.

When this higher labor force participation pattern is combined with the knowledge that almost half of the disrupted women had no other adult living in their household potentially available for child care and clearly had very limited funds for outside child care assistance, the ability of these women to maintain employment continuity is quite remarkable. In any event, the employment needs of these women combined with their limited access to free child care services and limited funds suggest that this group should receive the highest priority for child care and other forms of economic assistance.

Work and Training

Data from the National Longitudinal Surveys indicate that rather substantial numbers of women are enrolled in training programs of some kind in the periods immediately preceding and following the disruption event.[20] In addition, the proportion of white women enrolled in training during the preceding year increases rather sharply between T and T + 1, from 16 to 26 percent. There is no corresponding increase for black women, although they exhibit an increase in training participation rates from 11 to 20 percent between T + 1 and T + 2. Thus, whatever the reason for this difference, whites are better able to gain access to training programs when they need them. On the other hand, increased black participation in training associated with marital disruption is somewhat delayed, perhaps reflecting a lesser awareness program availability and partly reflecting a greater need to seek immediate gainful employment.

Supplementary multivariate analysis of the determinants of training at time T + 1 for black and white marital disruptees indicates one other major variation between the two race groups. White trainees are clearly selected out from the most educated of the eligibles, whereas blacks with the least education were more likely to be involved in training programs. Thus, while maritally disrupted blacks may be less likely to move into training programs at that point in the life cycle, from a positive perspective, those who do enroll are most in need of vocational assistance.

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[20] The following question was asked of women not enrolled in school: "Since this time last year have you taken any training courses or education programs of any kind either on the job or elsewhere?"

Since there are obvious associations between training and work at a given point in time, it is useful to inquire whether receipt of training between T - 1 and T is related to employment status at T + 1 for those not in the labor force at T. As may be noted in Table 7.6, training is associated with a higher probability of being employed at T + 1, with a lower employment rate, and with higher earnings. These patterns are in evidence for both black and white women but should be interpreted cautiously because of the small sample size for the group which had had training.

Work and Welfare

While the NLS income data are inadequate for measuring the extent to which welfare payments supplement the family income of maritally disrupted families, they are of considerable value for interpreting some of the associations between the propensity to have welfare assistance, employment status, and family income levels.

Table 7.7 shows that regardless of income level, families which either are or will become disrupted are more likely to be receiving some form of welfare transfer payment than similar "reference" families.[21] Also, in all instances, black families are more likely than white families to be receiving some form of public assistance. Regardless of race or income level, the proportion of maritally disrupted families receiving some form of assistance increases sharply as one moves from point T to T + 1 to T + 2. The increasing proportions receiving some form of welfare are generally consistent with the earlier documented sharp declines in the family's earned income following the disruption event. Also, the racial variations can be at least partly explained by differences in earnings and number of own children present between white and black women in the year following the disruption.

Some Multivariate Results

Predisruption labor force behavior Overall, 55 percent of the white women who subsequently experienced a marital disruption were

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[21] The survey questions asked with regard to receipt of public assistance do not discriminate as to the type of transfer payment received or as to which member of the family is receiving the assistance.

Table 7.6 Labor Force Status and Employment Characteristics at T + 1, by Training in Year Preceding T[a]

Training between T - 1 and T	Number of respondents	Labor force status at T + 1			
		Percent employed	Unemployment rate	Percent employed full time	Percent earning less than $2.00 per hour
Training	21	76.1	5.6	82.2	72.3
No training	177	37.5	26.4	80.3	81.7

[a] Universe consists of marital disruptees not in the labor force at T.

Table 7.7 Percentages of Marital Disruption and Reference Groups Receiving Welfare, by Race and Selected Income Characteristics at T, T + 1, and T + 2

Selected income characteristics	WHITES		BLACKS	
	Marital disruptees	Reference group	Marital disruptees	Reference group
All respondents				
T	5.4	2.5	17.3	7.7
T + 1	23.3	2.9	44.0	5.5
T + 2	26.9	2.9	52.4	7.9
Family income under $4000				
T	19.1	9.7	40.2	13.5
T + 1	38.6	14.8	63.5	16.1
T + 2	48.2	16.3	69.1	26.4
All respondents with no earnings				
T	9.2	4.9	30.1	12.2
T + 1	48.3	5.1	77.5	10.5
T + 2	69.3	4.6	94.2	13.3
All respondents with earnings				
T	3.7	1.5	12.9	6.0
T + 1	17.0	1.6	30.7	3.2
T + 2	18.5	1.5	40.7	5.6

[a] Data at T + 1 and T + 2 limited to marital disruptees who have not remarried or reconciled with their husbands as of those points in time.

[b] "Receiving welfare" reflects a positive response to the question, "Did anyone in this family receive any welfare or public assistance in the past 12 months?"

working at time T, as compared with 56 percent of white women whose marriages did not disrupt. The comparable estimate for the black prospective disruptees and reference group were 56 and 59 percent, respectively. However, as noted earlier, in labor supply models which included both prospective disruptees and the reference group at time T, racial variations did appear. After controlling for socioeconomic and other factors, white prospective disruptees were significantly more likely to be working or seeking work at time T than their nondisruptee counterparts, whereas no significant differences were found between the two black groups.

In the controlled multiple classification analysis at time T (Appendix Tables 7A.4 and 7A.5), there are certain dramatic differences between the reference group and marital disruptees in the way particular variables affect labor force behavior. For both black and white prospective marital disruptees, there are pronounced patterns of higher labor force participation for those women whose families have accumulated debts. Also, labor force rates are lower among those prospective disruptees living in high welfare access areas. None of the above significant relationships exist in any major way for either the black or white reference groups. Variations in labor force behavior between prospective disruptees and "reference" respondents along these dimensions may well represent divergent responses to inherently stressful situations. As such, they are consistent with the knowledge that one group of women did indeed have their marriages break up and the other group had their marriages remain intact.

Postdisruption labor force behavior While the patterns of adjusted participation rates are somewhat erratic, there are nonetheless certain trends and patterns worth noting (Appendix Tables 7A.6 and 7A.7). First, after marital disruption occurs, mean labor force participation rates are significantly higher for whites than for blacks, whereas before the marital breakup there were no differences between the two racial groups. Of course, for both blacks and whites, the labor force participation rates rise precipitously after the disruption event. The adjusted white labor force particpation rates after disruption are systematically higher for virtually every separate category of every socioeconomic and demographic characteristic. Within the separate race models, the results conform moderately well with theoretical expectations. For both black and white women, labor force participation appears positively associated with more work experience, higher potential earnings, better health and less access to welfare.

SUMMARY AND CONCLUSIONS

Whereas economic motives may be of only moderate importance as precipitating factors in a marital breakdown, economic consequences are very pronounced in the postdisruption life cycle phase. Marital disruption is accompanied by sharp declines in family income, increased receipt of welfare, increased desire for job-related training, and higher labor force participation rates. Increased usage of income maintenance programs occurs on the part of large proportions of women, particularly black women with children, low education, few job skills, and outside financial resources.

The large proportion of all young adult couples who experience marital disruption and the substantial economic impact that this experience has on young women suggests that some thought should be given to developing a program of transition assistance for maritally disrupted women and their children. Such a program might include job guidance, training, day care for children, and temporary income maintenance.

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APPENDIX A

CONSTRUCTION OF THE MARITAL DISRUPTION AND REFERENCE GROUP SAMPLES

The Marital Disruption Sample

All young women who divorce or separate for the first time during the 1968 to 1973 period are defined as the marital disruption sample. A "disrupted" woman will only be counted once--the year within the 1968 to 1973 period when she first appears as disrupted (separated or divorced). That is, if a woman were married with her spouse present in 1968, separated in 1969, and divorced in 1970, she would appear in the numerator of the marital disruption variable in 1969 but not again in 1970.

The following slippage exists in being able to identify properly all disrupting women:

(1) Women who were divorced or separated at some point before the first survey in 1968 cannot be identified.

(2) Women who are married, husband present, in successive years with the same husband and who had a separation in the intervening interval cannot be identified.

In general, all other women who either separate or divorce between 1968 and 1973 can be identified unless, of course, they leave the sample before the disruption event.

The Reference Group

Whereas a first marital disruption represents a unique event, appearing in the (maritally stable) reference group is not, since many women obviously are "eligible to disrupt" in more than one survey year. Thus, to count a woman in the reference group every year she is eligible to disrupt would result in massive double counting. For this reason, we have used the following procedure for defining that group:

(1) Every woman who is "eligible" at some point between 1968 and 1973 is included in the reference group but only one time.

(2) After excluding those women who are known to experience a marital disruption between 1968 and 1973, the remainder are randomly distributed across the survey years roughly in proportion to the distribution of marital disruption over the five-year period. That is, if x percent of all the first marital disruptions occurred between 1968 and 1969, then x percent of the eligible reference group was randomly assigned to that interval. Thus, once an individual is

selected for the reference group in a given year, she is no longer eligible for inclusion in any other year.

The above should meet the basic objectives of a properly defined reference group. That is, it (1) defines women who were eligible to disrupt but did not do so during the appropriate time period, and (2) assures that the reference group is demographically and temporally appropriate.

Variables for this reference group are generally measured in the year that the particular individual is selected to appear. For example, if we select a woman for our reference group in 1970, her socioeconomic characteristics (as entered in our model) will be measured as of the 1970 interview. The only exception is the case of those who were never married in the year in which they were selected to appear. The socioeconomic characteristics of these women will be measured as of the next interview, when they are married.

APPENDIX B

Dictionary of Variable Definitions and Categories

ACCESSIBILITY OF WELFARE IN STATE

To measure the ease of obtaining benefits, we use the proportion of potentially eligible households (according to Census definition) actaully receiving AFDC assistance by state. The actual benefit level received is proxied by Social Security statistics giving average payment per recipient by state. We can then construct a variable of the following form:

(1) High accessibility - high benefits
(2) High accessibility - low benefits
(3) Low accessibility - high benefits
(4) Low accessibility - low benefits

High accessibility means that the state has above the mean proportion of potentially eligible households actually receiving AFDC. High benefit levels mean that the state has above the mean average payment per recipient.

AGE OF RESPONDENT

Categories are as follows:

(1) 15-19 years
(2) 20-21 years
(3) 22-23 years
(4) 24 or older

AGE OF YOUNGEST CHILD

A set of variables using the age of the youngest child also will proxy for the presence of children:

(1) Child between 0 and 1 years
(2) Child 2 or more years
(3) No children

BOTH PARENTS PRESENT AT AGE 14

A variable indicating whether or not the respondent was living with both natural parents at the age of 14.

CHANGE IN FINANCIAL POSITION T - 1 TO T*

The variable is based on the question asked of each respondent at T as to whether she feels her family's position is better, about the same, or worse than at the previous interview date.

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*"T" references the last interview before the disruption; "T + 1," the first interview after the event; and "T - 1" and "T + 2," the immediately earlier and later interview dates.

DEBT ACCUMULATION

A set of categories giving the amount of debt liability (excluding 30-day charge accounts) incurred by the respondent's family at time T. Categories include:

(1) No debts
(2) Positive debts
(3) Debts unknown

DISRUPTION VARIABLE

(1) Reference group
(2) Marital disruptee

For details of reference group specification, see Appendix A.

DOES HEALTH LIMIT WORK?

Categories are as follows:

(1) Health status affects work or schooling
(2) Health status does not affect work or schooling
(3) Health status not known

DURATION OF MARRIAGE

Duration of marriage is measured in six month units because the exact date of marriage is not known and therefore, duration must be measured relative to the survey dates.

(1) 0-1½ years
(2) 2-2½ years
(3) 3-5 years
(4) 5½ or more years

EASE OF DIVORCE: DIVORCE RATE IN STATE

The divorce rate by state of residence is used to proxy for the ease of obtaining a divorce in a given state.

(1) 0 - 2.6 divorce rate per 1,000 population
(2) 2.7 - 4.1 divorce rate
(3) 4.2 - 6.7 divorce rate
(4) 6.8 or higher divorce rate
(5) State of residence unknown

HUSBAND'S EARNINGS: PAST YEAR

Taken from the question regarding earnings of the husband in the year prior to the point T.

(1) Earnings unknown
(2) $0 - $3,999

(3) \$4,000 - \$5,999
(4) \$6,000 - \$7,999
(5) \$8,000 or more

POTENTIAL WAGE

Actual hourly earnings are hypothesized to be a function of the respondent's education, work experience, South-non-South residence, SMSA/nonSMSA, and job tenure. From these estimates, assuming women with like characteristics will have similar labor supply behavior, a potential wage standardized in 1967 dollars, whether or not the woman is presently in the labor market, is estimated.

For whites, the wage equation is as follows (with t-statistics in parentheses):

$$\text{WAGE} = \underset{(2.95)}{140.54} - \underset{(-2.83)}{20.873\times(\text{EDUCATION})} + \underset{(6.52)}{15.566\times(\text{WORK EXPERIENCE})}$$

$$+ \underset{(4.42)}{14.703\times(\text{JOB TENURE})} - \underset{(-2.90)}{1.2874\times(\text{JOB TENURE}^2)}$$

$$- \underset{(-3.04)}{.69706\times(\text{WORK EXPERIENCE}^2)} + \underset{(5.28)}{25.870\times(\text{SMSA})}$$

$$- \underset{(-0.98)}{4.9788\times(\text{SOUTH})} + \underset{(5.59)}{1.6068\times(\text{EDUCATION}^2)}$$

For blacks, the wage equation is as follows (with t-statistics in parentheses):

$$\text{WAGE} = \underset{(3.77)}{193.79} - \underset{(-2.49)}{20.904\times(\text{EDUCATION})} + \underset{(5.25)}{14.012\times(\text{WORK EXPERIENCE})}$$

$$+ \underset{(2.10)}{8.8415\times(\text{JOB TENURE})} - \underset{(-0.58)}{.35380\times(\text{JOB TENURE}^2)}$$

$$- \underset{(-4.54)}{1.1459\times(\text{WORK EXPERIENCE}^2)} + \underset{(3.31)}{20.261\times(\text{SMSA})}$$

$$- \underset{(-7.17)}{39.102\times(\text{SOUTH})} + \underset{(4.13)}{1.4513\times(\text{EDUCATION}^2)}$$

Categories are as follows:

(1) \$1.50 or less
(2) \$1.51 - 1.99
(3) \$2.00 or more

RESPONDENT'S EDUCATION

Reflects the highest grade completed by the respondent. Categories are as follows:

(1) 0-11 years
(2) 12 years
(3) 13+ years

SMSA RESIDENCE

Variable is categorized as follows:

(1) Not in SMSA
(2) In SMSA

TOTAL FAMILY INCOME LESS RESPONDENT'S EARNINGS PAST YEAR (Adjusted to 1967 dollars) T + 1, T + 2

At times T + 1 and T + 2, the variable is based on total family income minus the respondent's earnings. It is categorized as follows:

(1) $0 - 499
(2) $500 or more

WORK EXPERIENCE

Work experience is measured by the number of years since leaving school full time that the respondent worked 6 months or more. Categories are as follows:

a) In the determinants of disruption section:
    (1) 0-2 years
    (2) 3 or more years

b) In the consequences of disruption section:
    (1) 0 years
    (2) 1-2 years
    (3) 3 or more years

YEAR OF EVENT

A variable indicating the relevant survey year from which the data for each respondent was taken.

Table 7A.1 Unadjusted and Adjusted Proportions of Respondents Experiencing a Marital Disruption between 1968 and 1973, by Race: Multiple Classification Analysis[a]

Characteristics[b]	Number of respondents	Unadjusted proportion	Adjusted proportion	F-ratio
	WHITES			
Age of youngest child				0.40
0-1 years	650	.14	.12	
2 or more years	382	.16	.14	
No children	998	.10	.12	
Accessibility of welfare in state				1.77
Low access - low benefits	551	.14	.11	
High access - high benefits	812	.12	.14	
Other	667	.12	.12	
Respondent's education				13.62***
0-11 years	444	.24	.20	
12 years	1,093	.11	.11	
13 or more years	493	.06	.10	
Debt accumulation				2.92*
No debt	577	.09	.11	
Some debt	604	.15	.15	
Not ascertainable	849	.13	.12	
Work experience				9.51***
0-2 years	1,202	.12	.11	
3 or more years	828	.13	.15	
Potential wage				4.59**
$1.50 or less	658	.18	.16	
$1.51 - 1.99	643	.11	.11	
$2.00 or more	729	.10	.11	
Residence in SMSA				8.96***
Yes	1,239	.13	.14	
No	791	.11	.10	
Husband's earnings in past year				2.17*
$0 - 3,999	640	.12	.12	
$4,000 - 5,999	448	.14	.13	
$6,000 - 7,999	411	.11	.11	
$8,000 or more	370	.11	.11	
Not ascertainable	161	.17	.19	

(Table continued on next page.)

Table 7A.1 Continued

Characteristics[b]	Number of respondents	Unadjusted proportion	Adjusted proportion	F-ratio
	WHITES			
Both parents present at age 14				4.60**
Yes	1,698	.11	.12	
No	332	.19	.16	
Age of respondent				7.64***
15-19	316	.18	.19	
20-21	483	.13	.14	
22-23	576	.11	.12	
24 or older	655	.10	.09	
Duration of marriage				13.83***
0 - 1½ years	948	.09	.08	
2 - 2½ years	238	.17	.16	
3 - 5 years	525	.17	.18	
5½ or more years	319	.13	.15	
Ease of divorce: divorce rate in state				4.86***
0 - 2.6	484	.09	.10	
2.7 - 4.1	535	.10	.10	
4.2 - 6.7	579	.15	.14	
6.8 or higher	181	.20	.20	
Not ascertainable	251	.12	.15	
Change in financial position T - 1 to T				1.03
Better	992	.11	.11	
Same	606	.15	.14	
Worse	182	.14	.14	
Not ascertainable	250	.14	.13	
Hours worked during survey week				7.89***
None reported	1,076	.13	.10	
1-34	283	.11	.13	
35 or more	671	.13	.16	
Grand mean	2,030	.13	.13	5.12***
R^2 (adjusted)				.06

(Table continued on next page.)

Table 7A.1 Continued

Characteristics[b]	Number of respondents	Unadjusted proportion	Adjusted proportion	F-ratio
	BLACKS			
Age of youngest child				0.49
0-1 years	289	.35	.33	
2 or more years	135	.36	.32	
No children	168	.20	.28	
Accessibility of welfare in state				4.54**
Low access - low benefits	331	.28	.27	
High access - high benefits	165	.34	.35	
Other	96	.37	.40	
Respondent's education				4.53**
0-11 years	254	.41	.38	
12 years	264	.26	.26	
13 or more years	74	.19	.28	
Debt accumulation				0.35
No debt	167	.28	.31	
Some debt	198	.30	.30	
Not ascertainable	227	.35	.33	
Work experience				2.48
0-2 years	394	.32	.29	
3 or more years	198	.30	.35	
Potential wage				1.20
$1.50 or less	271	.32	.29	
$1.51 - 1.99	207	.36	.35	
$2.00 or more	114	.22	.30	
Residence in SMSA				0.79
Yes	391	.31	.32	
No	201	.32	.29	
Husband's earnings in past year				2.54**
$0 - 3,999	248	.31	.30	
$4,000 - 5,999	155	.30	.31	
$6,000 - 7,999	75	.23	.24	
$8,000 or more	35	.22	.28	
Not ascertainable	79	.49	.45	

(Table continued on next page.)

Table 7A.1 Continued

Characteristics[b]	Number of respondents	Unadjusted proportion	Adjusted proportion	F-ratio
	BLACKS			
Both parents present at age 14				2.05
Yes	342	.27	.29	
No	250	.37	.34	
Age of respondent				3.15**
15-19	124	.37	.42	
20-21	143	.30	.31	
22-23	158	.27	.28	
24 or older	167	.32	.27	
Duration of marriage				11.28***
0 - 1½ years	305	.21	.22	
2 - 2½ years	73	.38	.35	
3 - 5 years	136	.47	.47	
5½ or more years	78	.31	.34	
Ease of divorce: divorce rate in state				1.00
0 - 2.6	84	.37	.32	
2.7 - 4.1	228	.33	.36	
4.2 - 6.7	177	.28	.28	
6.8 or higher	65	.29	.27	
Not ascertainable	38	.29	.30	
Change in financial position T - 1 to T				6.58***
Better	241	.20	.24	
Same	220	.36	.33	
Worse	61	.39	.35	
Not ascertainable	70	.47	.48	
Hours worked during survey week				1.60
None reported	347	.36	.33	
1-34	59	.18	.22	
35 or more	186	.27	.31	
Grand mean	592	.31	.31	3.57***
R^2 (adjusted)				.12

a Respondents 14 to 24 years of age in 1968 who have either experienced a first disruption or who are included in the reference group.

b For a complete description of all variables, see Appendix B.

* Significant at the 10 percent level.

** Significant at the 5 percent level.

*** Significant at the 1 percent level.

Table 7A.2 Mean and Median Income and Earnings Estimates for Marital Disruption Group at T, T + 1, and T + 2, by Race[a]

Time reference	Number of respondents	Total family income (dollars)		Respondents' earnings' (dollars)		Income less respondents' earnings (dollars)	
		Mean	Median	Mean	Median	Mean	Median
	WHITES						
T	229	7,552	7,095	1,708	833	5,845	5,812
T + 1	232	5,197	4,253	2,489	1,658	2,709	466
T + 2	126	5,983	4,641	3,128	3,293	2,855	392
	BLACKS						
T	166	6,251	5,700	1,594	982	4,658	4,577
T + 1	173	3,967	3,061	1,622	878	2,344	850
T + 2	106	3,794	3,153	2,037	1,611	1,756	196

[a] Data for T + 1 and T + 2 are limited to marital disruptees who have not remarried or returned to their husbands.

Table 7A.3 Unadjusted and Adjusted Proportions of Population Eligible for Marital Disruption in Labor Force at Time T, by Race: Multiple Classification Analysis[a]

Characteristics[b]	Number of respondents	Unadjusted proportion	Adjusted proportion	F-ratio
	WHITES			
Age of youngest child				106.21***
0-1 years	646	.32	.40	
2 or more years	383	.43	.49	
No children	993	.76	.69	
Accessibility of welfare				0.18
Low access - low benefits	545	.55	.57	
High access - high benefits	812	.55	.55	
Other	665	.57	.56	
Respondent's education				24.12***
0-11 years	437	.36	.63	
12 years	1,093	.56	.58	
13 or more years	492	.71	.46	
Debt accumulation				5.89***
No debt	578	.62	.52	
Some debt	602	.57	.55	
Not ascertainable	842	.51	.59	
Work experience				10.00***
0	508	.29	.53	
1-2 years	688	.59	.61	
3 or more years	826	.70	.53	
Potential wage				394.04***
$1.50 or less	650	.27	.25	
$1.51 - 1.99	645	.53	.51	
$2.00 or more	727	.82	.86	
Residence in SMSA				44.77***
Yes	1,236	.56	.51	
No	786	.55	.64	
Husband's earnings in past year				13.22***
$0 - 3,999	632	.62	.59	
$4,000 - 5,999	448	.60	.62	
$6,000 - 7,999	412	.58	.57	
$8,000 or more	369	.41	.44	
Not ascertainable	161	.53	.50	
Does health limit work?				1.34
Yes	91	.42	.52	
No	1,830	.56	.56	
Not ascertainable	101	.59	.61	
Year of event				6.18***
1968	245	.43	.55	
1969	350	.50	.51	
1970	474	.52	.52	
1971	419	.54	.57	
1972	534	.70	.62	
Disruption variable				6.23**
Marital disruptee	241	.55	.62	
Reference group	1,781	.56	.55	
Grand mean	2,022	.56	.56	43.93***
R^2 (adjusted)				.34

(Table continued on next page.)

Table 7A.3 Continued

Characteristics[b]	Number of respondents	Unadjusted proportion	Adjusted proportion	F-ratio
	BLACKS			
Age of youngest child				3.98**
0-1 years	287	.50	.54	
2 or more years	132	.60	.59	
No children	166	.71	.66	
Accessibility of welfare				8.11***
Low access - low benefits	325	.57	.64	
High access - high benefits	164	.56	.47	
Other	96	.65	.59	
Respondent's education				2.12
0-11 years	251	.51	.62	
12 years	260	.59	.55	
13 or more years	74	.75	.55	
Debt accumulation				12.42***
No debt	164	.56	.62	
Some debt	197	.61	.68	
Not ascertainable	224	.57	.47	
Work experience				19.65***
0	211	.34	.43	
1-2 years	178	.62	.63	
3 or more years	196	.79	.69	
Potential wage				35.22***
$1.50 or less	268	.42	.43	
$1.51 - 1.99	203	.59	.61	
$2.00 or more	114	.88	.83	
Residence in SMSA				0.08
Yes	386	.60	.58	
No	199	.54	.57	
Husband's earnings in past year				1.48
$0 - 3,999	242	.58	.61	
$4,000 - 5,999	155	.60	.59	
$6,000 - 7,999	75	.60	.56	
$8,000 or more	35	.72	.65	
Not ascertainable	78	.45	.48	
Does health limit work?				3.91**
Yes	35	.41	.45	
No	518	.61	.60	
Not ascertainable	32	.41	.45	
Year of event				8.07***
1968	68	.60	.51	
1969	99	.60	.72	
1970	119	.55	.69	
1971	129	.61	.50	
1972	170	.56	.49	
Disruption variable				0.10
Marital disruptee	169	.56	.59	
Reference group	416	.59	.58	
Grand mean	585	.58	.58	7.29***
R^2 (adjusted)				.21

a Respondents age 14 to 24 years of age in 1968 who have either experienced a first disruption or who are included in the reference group.

b For a complete description of all variables, see Appendix B.

** Significant at the 5 percent level.

*** Significant at the 1 percent level.

Table 7A.4 Unadjusted and Adjusted Proportions of Reference Group in Labor Force at Time T, by Race: Multiple Classification Analysis

Characteristics[a]	Number of respondents	Unadjusted proportion	Adjusted proportion	F-ratio
	WHITES			
Age of youngest child				105.09***
0-1 years	558	.31	.39	
2 or more years	323	.42	.49	
No children	900	.77	.69	
Accessibility of welfare				0.26
Low access - low benefits	483	.55	.57	
High access - high benefits	711	.56	.56	
Other	587	.57	.55	
Respondent's education				16.83***
0-11 years	344	.34	.63	
12 years	975	.56	.58	
13 or more years	462	.71	.47	
Debt accumulation				2.82*
No debt	527	.63	.53	
Some debt	510	.57	.55	
Not ascertainable	744	.51	.59	
Work experience				8.42***
0	437	.30	.52	
1-2 years	615	.59	.61	
3 or more years	729	.69	.54	
Potential wage				300.36***
$1.50 or less	545	.27	.27	
$1.51 - 1.99	575	.52	.50	
$2.00 or more	661	.82	.83	
Residence in SMSA				29.94***
Yes	1,074	.57	.52	
No	707	.55	.63	
Husband's earnings in past year				12.95***
$0 - 3,999	559	.63	.60	
$4,000 - 5,999	387	.61	.63	
$6,000 - 7,999	368	.57	.57	
$8,000 or more	330	.41	.44	
Not ascertainable	137	.53	.49	
Does health limit work?				2.06
Yes	76	.43	.55	
No	1,619	.56	.56	
Not ascertainable	86	.62	.64	
Year of event				4.17***
1968	210	.44	.56	
1969	305	.49	.52	
1970	422	.52	.53	
1971	360	.52	.55	
1972	484	.71	.62	
Grand mean	1,781	.56	.56	40.55***
R^2 (adjusted)				.34

(Table continued on next page.)

Table 7A.4 Continued

Characteristics[a]	Number of respondents	Unadjusted proportion	Adjusted proportion	F-ratio
	BLACKS			
Age of youngest child				2.51*
0-1 years	194	.52	.55	
2 or more years	85	.56	.58	
No children	137	.72	.66	
Accessibility of welfare				2.56*
Low access - low benefits	244	.57	.63	
High access - high benefits	113	.59	.52	
Other	59	.66	.57	
Respondent's education				1.43
0-11 years	154	.49	.58	
12 years	198	.60	.57	
13 or more years	64	.82	.68	
Debt accumulation				2.46*
No debt	116	.57	.62	
Some debt	145	.61	.64	
Not ascertainable	155	.59	.53	
Work experience				24.18***
0	149	.34	.40	
1-2 years	129	.62	.63	
3 or more years	138	.81	.74	
Potential wage				13.64***
$1.50 or less	187	.42	.47	
$1.51 - 1.99	135	.60	.63	
$2.00 or more	94	.87	.75	
Residence in SMSA				0.74
Yes	277	.60	.58	
No	139	.57	.62	
Husband's earnings in past year				2.50**
$0 - 3,999	172	.60	.63	
$4,000 - 5,999	118	.58	.57	
$6,000 - 7,999	58	.64	.63	
$8,000 or more	27	.74	.63	
Not ascertainable	41	.38	.40	
Does health limit work?				4.06**
Yes	25	.45	.49	
No	371	.62	.61	
Not ascertainable	20	.35	.39	
Year of event				2.22*
1968	38	.57	.57	
1969	73	.62	.68	
1970	76	.59	.66	
1971	99	.62	.53	
1972	130	.56	.55	
Grand mean	416	.59	.59	6.25***
R^2 (adjusted)				.23

a For a complete description of all variables, see Appendix B.
* Significant at the 10 percent level.
** Significant at the 5 percent level.
*** Significant at the 1 percent level.

Table 7A.5 Unadjusted and Adjusted Proportions of Marital Disruption Group in Labor Force at Time T, by Race: Multiple Classification Analysis

Characteristics[a]	Number of respondents	Unadjusted proportion	Adjusted proportion	F-ratio
	WHITES			
Age of youngest child				6.17***
0-1 years	88	.39	.47	
2 or more years	60	.50	.50	
No children	93	.73	.66	
Accessibility of welfare				3.67**
Low access - low benefits	62	.56	.52	
High access - high benefits	101	.48	.49	
Other	78	.63	.65	
Respondent's education				6.64***
0-11 years	93	.40	.58	
12 years	118	.62	.59	
13 or more years	30	.73	.31	
Debt accumulation				15.45***
No debt	51	.54	.35	
Some debt	92	.58	.50	
Not ascertainable	98	.53	.70	
Work experience				5.84***
0	71	.24	.63	
1-2 years	73	.56	.61	
3 or more years	97	.75	.45	
Potential wage				112.92***
$1.50 or less	105	.28	.15	
$1.51 - 1.99	70	.62	.65	
$2.00 or more	66	.89	1.05	
Residence in SMSA				29.21***
Yes	162	.53	.46	
No	79	.59	.75	
Husband's earnings in past year				0.83
$0 - 3,999	73	.55	.56	
$4,000 - 5,999	61	.55	.56	
$6,000 - 7,999	44	.64	.61	
$8,000 or more	39	.44	.47	
Not ascertainable	24	.53	.50	
Does health limit work?				2.03
Yes	15	.33	.42	
No	211	.58	.57	
Not ascertainable	15	.36	.42	
Year of event				8.62***
1968	35	.38	.46	
1969	45	.54	.42	
1970	52	.50	.38	
1971	59	.68	.73	
1972	50	.57	.69	
Grand mean	241	.55	.55	7.69***
R^2 (adjusted)				.39

(Table continued on next page.)

Table 7A.5 Continued

Characteristics[a]	Number of respondents	Unadjusted proportion	Adjusted proportion	F-ratio
	BLACKS			
Age of youngest child				2.69*
0-1 years	93	.47	.49	
2 or more years	47	.67	.66	
No children	29	.69	.63	
Accessibility of welfare				7.30***
Low access - low benefits	81	.57	.69	
High access - high benefits	51	.49	.38	
Other	37	.62	.53	
Respondent's education				9.88***
0-11 years	97	.54	.67	
12 years	62	.59	.47	
13 or more years	10	.50	.15	
Debt accumulation				3.63**
No debt	48	.52	.39	
Some debt	52	.63	.62	
Not ascertainable	69	.52	.60	
Work experience				3.43**
0	62	.34	.44	
1-2 years	49	.64	.65	
3 or more years	58	.72	.60	
Potential wage				15.33***
$1.50 or less	81	.41	.38	
$1.51 - 1.99	68	.58	.61	
$2.00 or more	20	.93	.93	
Residence in SMSA				5.19**
Yes	109	.60	.61	
No	60	.46	.44	
Husband's earnings in past year				1.52
$0 - 3,999	37	.52	.55	
$4,000 - 5,999	70	.52	.53	
$6,000 - 7,999	37	.63	.65	
$8,000 or more	17	.49	.36	
Not ascertainable	8	b	b	
Does health limit work?				0.69
Yes	10	.28	.41	
No	147	.58	.57	
Not ascertainable	12	.49	.49	
Year of event				0.53
1968	30	.64	.59	
1969	26	.55	.48	
1970	43	.49	.53	
1971	30	.59	.59	
1972	40	.54	.61	
Grand mean	169	.56	.56	2.79***
R^2 (adjusted)				.20

a For a complete description of all variables, see Appendix B.

b Proportion not reported where category contains less than 10 respondents.

* Significant at the 10 percent level.

** Significant at the 5 percent level.

*** Significant at the 1 percent level.

Table 7A.6 Unadjusted and Adjusted Proportions of Marital Disruption Group in the Labor Force at Time T + 1, by Race: Multiple Classification Analysis

Characteristics[a]	Number of respondents	Unadjusted proportion	Adjusted proportion	F-ratio
	WHITES			
Age of youngest child				5.87***
0-1 years	57	.53	.60	
2 or more years	86	.80	.82	
No children	84	.79	.73	
Accessibility of welfare				5.26***
Low access - low benefits	53	.89	.86	
High access - high benefits	96	.67	.65	
Other	78	.70	.74	
Respondent's education				0.36
0-11 years	89	.63	.75	
12 years	109	.78	.72	
13 or more years	29	.83	.69	
Debt accumulation				10.96***
No debt	82	.68	.81	
Some debt	67	.73	.82	
Not ascertainable	78	.78	.56	
Work experience				6.10***
0	49	.38	.59	
1-2 years	64	.75	.85	
3 or more years	114	.85	.72	
Potential wage				31.69***
$1.50 or less	85	.53	.50	
$1.51 - 1.99	63	.74	.72	
$2.00 or more	79	.92	.97	
Residence in SMSA				8.67***
Yes	153	.70	.68	
No	74	.79	.84	
Does health limit work?				0.41
Yes	22	.54	.67	
No	185	.76	.73	
Not ascertainable	20	.64	.78	
Year of event				12.98***
1968	30	.81	.99	
1969	44	.79	.99	
1970	46	.65	.61	
1971	57	.73	.62	
1972	50	.69	.58	
Total family income less respondent's earnings in past year				0.59
$0 - 499	105	.75	.74	
$500 or more	94	.72	.74	
Not ascertainable	28	.69	.65	
Grand mean	227	.73	.73	4.99***
R^2 (adjusted)				.27

(Table continued on next page.)

Table 7A.6 Continued

Characteristics[a]	Number of respondents	Unadjusted proportion	Adjusted proportion	F-ratio
		BLACKS		
Age of youngest child				2.85*
0-1 years	65	.58	.61	
2 or more years	72	.64	.60	
No children	26	.77	.81	
Accessibility of welfare				5.74***
Low access - low benefits	68	.72	.77	
High access - high benefits	52	.63	.59	
Other	43	.53	.51	
Respondent's education				0.01
0-11 years	93	.52	.63	
12 years	60	.73	.64	
13 or more years	10	.95	.65	
Debt accumulation				0.91
No debt	64	.59	.61	
Some debt	43	.70	.71	
Not ascertainable	56	.64	.61	
Work experience				0.63
0	48	.46	.58	
1-2 years	48	.61	.65	
3 or more years	67	.78	.67	
Potential wage				15.21***
$1.50 or less	72	.49	.41	
$1.51 - 1.99	69	.64	.74	
$2.00 or more	22	1.00	.86	
Residence in SMSA				0.51
Yes	113	.66	.62	
No	50	.59	.68	
Does health limit work?				11.60***
Yes	14	.21	.21	
No	139	.70	.70	
Not ascertainable	10	.59	.55	
Year of event				2.41*
1968	30	.78	.72	
1969	25	.48	.53	
1970	39	.79	.77	
1971	29	.58	.54	
1972	40	.52	.58	
Total family income less respondent's earnings in past year				0.61
$0 - 499	65	.69	.62	
$500 or more	83	.61	.67	
Not ascertainable	15	.49	.54	
Grand mean	163	.64	.64	3.69***
R^2 (adjusted)				.26

a For a complete description of all variables, see Appendix B.
* Significant at the 10 percent level.
*** Significant at the 1 percent level.

Table 7A.7 Unadjusted and Adjusted Proportions of Marital Disruption Group in Labor Force at Time T + 2, by Race: Multiple Classification Analysis

Characteristics[a]	Number of respondents	Unadjusted proportion	Adjusted proportion	F-ratio
	WHITES			
Age of youngest child				14.37***
0-1 years	20	.35	.37	
2 or more years	65	.78	.80	
No children	37	.94	.89	
Accessibility of welfare				0.63
Low access - low benefits	23	.93	.83	
High access - high benefits	56	.74	.73	
Other	43	.69	.75	
Respondent's education				0.66
0-11 years	43	.61	.70	
12 years	62	.82	.79	
13 or more years	17	.85	.75	
Debt accumulation				12.37***
No debt	51	.73	.85	
Some debt	51	.79	.81	
Not ascertainable	20	.74	.40	
Work experience				20.75***
0	23	.37	.29	
1-2 years	28	.72	.76	
3 or more years	71	.83	.88	
Potential wage				2.94*
$1.50 or less	36	.53	.88	
$1.51 - 1.99	35	.74	.71	
$2.00 or more	51	.91	.70	
Residence in SMSA				1.36
Yes	84	.77	.78	
No	38	.71	.69	
Does health limit work?				0.10
Yes	14	.71	.80	
No	99	.79	.75	
Not ascertainable	9	b	b	
Year of event				8.48***
1968	19	.78	1.13	
1969	26	.81	.70	
1970	37	.68	.69	
1971	40	.78	.66	
Total family income less respondent's earnings in past year				2.04
$0 - 499	61	.78	.76	
$500 or more	52	.73	.71	
Not ascertainable	9	b	b	
Grand mean	122	.76	.76	3.32***
R^2 (adjusted)				.28

(Table continued on next page.)

Table 7A.7 Continued

Characteristics[a]	Number of respondents	Unadjusted proportion	Adjusted proportion	F-ratio
	BLACKS			
Age of youngest child				0.07
0-1 years	26	.61	.60	
2 or more years	65	.63	.65	
No children	12	.73	.64	
Accessibility of welfare				0.39
Low access - low benefits	44	.61	.64	
High access - high benefits	33	.59	.59	
Other	26	.75	.69	
Respondent's education				1.40
0-11 years	61	.60	.65	
12 years	35	.60	.56	
13 or more years	7	b	b	
Debt accumulation				1.21
No debt	42	.56	.56	
Some debt	38	.74	.65	
Not ascertainable	23	.60	.73	
Work experience				4.57**
0	21	.26	.38	
1-2 years	30	.68	.73	
3 or more years	52	.78	.69	
Potential wage				3.59**
$1.50 or less	39	.49	.50	
$1.51 - 1.99	43	.65	.64	
$2.00 or more	21	.83	.83	
Residence in SMSA				2.80*
Yes	77	.63	.60	
No	26	.68	.79	
Does health limit work?				2.50*
Yes	5	b	b	
No	87	.69	.69	
Not ascertainable	11	.49	.48	
Year of event				3.44**
1968	22	.59	.42	
1969	22	.57	.64	
1970	36	.72	.80	
1971	23	.66	.64	
Total family income less respondent's earnings in past year				0.14
$0 - 499	57	.70	.65	
$500 or more	40	.57	.63	
Not ascertainable	6	b	b	
Grand mean	103	.64	.64	1.85**
R^2 (adjusted)				.14

a For a complete description of all variables, see Appendix B.

b Proportion not reported where category contains less than 10 respondents.

* Significant at the 10 percent level.

** Significant at the 5 percent level.

*** Significant at the 1 percent level.

Table 7A.8 Number of Respondents[a] Experiencing a Marital Disruption by Year of Disruption and Race

Year of disruption	Race total	Whites	Blacks
Total	449	264	185
1968-1969	68	35	33
1969-1970	80	51	29
1970-1971	102	59	43
1971-1972	96	64	32
1972-1973	103	55	48

a Frequencies are unweighted data.

Table 7A.9 Number of Respondents[a] Experiencing a Marital Disruption by Type of Disruption, Year of Disruption, and Race

Year of disruption	Race total		Whites		Blacks	
	Separation	Divorce	Separation	Divorce	Separation	Divorce
Total	306	251	144	192	162	59
1968-1969	48	20	19	16	29	4
1969-1970	57	37	31	24	26	13
1970-1971	68	53	30	43	38	10
1971-1972	64	59	35	43	28	16
1972-1973	69	82	29	66	40	16

a Frequencies are unweighted data.

Table 7A.10 Number of Respondents[a] for Reference Group by Year of Selection and Race

Year of selection	Race total	Whites	Blacks
Total	2,305	1,862	443
1968	285	239	46
1969	371	301	70
1970	527	444	83
1971	514	398	116
1972	608	480	128

a Frequencies are unweighted data.

APPENDIX A

SAMPLING, INTERVIEWING AND ESTIMATING PROCEDURES

APPENDIX A

SAMPLING, INTERVIEWING AND ESTIMATING PROCEDURES

The Survey of Work Experience of Young Women is one of the four longitudinal surveys sponsored by the Employment and Training Administration of the U.S. Department of Labor. Taken together, these four surveys constitute the National Longitudinal Surveys (NLS). Each of the four NLS samples was designed by the Bureau of the Census to represent the civilian noninstitutional population of the United States at approximately the time of the initial survey. Because of attrition from the samples over the years of the surveys, they cannot be construed to be precisely representative of the civilian noninstitutional population in any year after the first.

Sample Design

The cohort is represented by a multistage probability sample located in 235 sample areas comprising 485 counties and independent cities representing every state and the District of Columbia. The 235 sample areas were selected by grouping all of the nation's counties and independent cities into about 1,900 primary sampling units (PSU's), and further forming 235 strata of one or more PSU's that are relatively homogeneous according to socioeconomic characteristics. Within each of the strata a single PSU was selected to represent the stratum. Within each PSU a probability sample of housing units was selected to represent the civilian noninstitutional population.

Since one of the survey requirements was to provide separate reliable statistics for blacks, households in predominantly black enumeration districts (ED's) were selected at a rate approximately three times that for households in predominantly white ED's. The sample was designed to provide approximately 5,000 respondents--about 1,500 blacks and 3,500 whites.

An initial sample of about 42,000 housing units was selected, and a screening interview took place in March and April 1966. Of this number, about 7,500 units were found to be vacant, occupied by persons whose usual residence was elsewhere, changed from residential use, or demolished. On the other hand, about 900 additional units were found which had been created within existing living space or had been changed from what was previously nonresidential space. Thus, 35,360 housing units were available for interview , of which usable information was collected for 34,622 households, a completion rate of 98.0 percent.

Following the initial interview and screening operation, the sample was rescreened in the fall of 1966, immediately prior to the first Survey of Work Experience of Males 14 to 24. For the rescreening operation, the sample was stratified by the presence or absence of a 14- to 24-year-old woman in the household. The rescreened sample was used to designate 5,533 young women aged 14 to 24 as of January 1, 1968, to be interviewed for the Survey of Work Experience. These were sampled differentially within four strata: whites in white ED's (i.e., ED's which contained predominantly white households); nonwhites in white ED's; whites in nonwhite ED's; and nonwhites in nonwhite ED's.

The Field Work

Over 300 interviewers were assigned to each of the surveys. Preference in the selection of interviewers was given to those who had had experience on one of the other longitudinal surveys. Since many of the procedures and the labor force and socioeconomic concepts used in this survey were similar to those used in the Current Population Survey (CPS), whenever possible, the Bureau of the Census used interviewers with CPS experience.

Training for the interviewers consisted of a home study package which included a reference manual explaining the purpose, procedures, and concepts used in the survey and the home study exercises and a set of questions based on points explained in the manual. In addition to the home study package, in the early survey years there were one-day classroom training sessions which all interviewers were required to attend. All training materials were prepared by the Census Bureau staff and reviewed by the Employment and Training Administration and the Center for Human Resource Research of The Ohio State University. Professional members of the participating organizations observed both the training sessions and the actual interviewing.

In addition to training, a field edit was instituted to insure adequate quality. This consisted of a full edit of the completed questionnaires by Data Collection Center staffs. The edit consisted of reviewing each questionnaire from beginning to end to determine whether the entries were complete and consistent and whether the skip instructions were being followed. If there were minor problems, the interviewer was contacted by phone, told of her error, and asked to contact the respondent for further clarification. For more serious problems, the interviewer was retrained, either totally or in part, and the questionnaire was returned to her for completion.

Estimating Methods

The estimating procedure used in the NLS involved multistage ratio estimates.

Basic weight The first step was the assignment to each sample case of a basic weight consisting of the reciprocal of the final probability of selection. The probability reflects the differential sampling which was employed by race within each stratum.

Noninterview adjustment In the initial survey the weights for all those interviewed were adjusted to the extent needed to account for persons for whom no information was obtained because of absence, refusal, or unavailability for other reasons. This adjustment was made separately for the following groupings: Census region, place of residence, and race.

Ratio estimates The distribution of the population selected for the sample may differ somewhat, by chance, from that of the nation as a whole with respect to residence, age, race, and sex. Since these population characteristics are closely correlated with the principal measurements made from the sample, the measurements can be substantially improved when weighted appropriately to conform to the known distribution of these population characteristics.[1] This was accomplished in the initial survey through two stages of ratio estimation.

The first stage of ratio estimation takes into account differences at the time of the 1960 Census in the distribution by race and residence of the population as estimated from the sample PSU's and that of the total population in each of the four major regions of the country. Using 1960 Census data, estimated population totals by race and residence for each region were computed by appropriately weighting the Census counts for PSU's in the sample. Ratios were then computed between these estimates (based on sample PSU's) and the actual population totals for the region as shown by the 1960 Census.

In the second stage, the sample proportions were adjusted to independent current estimates of the civilian noninstitutionalized population by age and race. These estimates were prepared by carrying forward the most recent Census data (1960) to take account of subsequent aging of the population, mortality, and migration between the United States and other countries.[2] The adjustment was made by race within four age groupings.

Weights for subsequent years As a result of the above steps, each sample person has a weight which remains unchanged throughout the life of the study. The universe of study was thus fixed at the time of interview for the first survey. Since no reweighting of the sample was made after subsequent surveys, the group of interviewed persons is an unbiased sample of the population group in existence at the time of the first survey only. The number of young women with whom initial interviews were conducted was 5,159.

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[1] See Bureau of the Census Technical Paper no. 7, The Current Population Survey--A Report on Methodology, 1963, for a more detailed explanation of the preparation of the estimates.

[2] See Bureau of the Census, Current Population Reports, Series P-25, no. 352, November 18, 1966, for a description of the methods used in preparing these independent population estimates.

Coding and Editing

Most of the data on the interview schedules required no coding, since a majority of the answers were numerical entries or in the form of precoded categories. However, clerical coding was necessary for the occupational and industrial classification of the several jobs referred to in the interview. The Census Bureau's standard occupation and industry codes used for the CPS were employed for this purpose. Codes for other open-ended questions were assigned by the Census Bureau, in some cases on the basis of guidelines developed by the Center for Human Resource Research from tallies of subsamples of the returns.

The consistency edits for the interview schedules were completed on the computer by the Census Bureau. For the parts of the questionnaire which were similar to the CPS, a modified CPS edit was used. For all other sections, separate consistency checks were performed. None of the edits included an allocation routine which was dependent on averages or random information from outside sources, since such allocated data could not be expected to be consistent with data from previous or subsequent surveys. However, where the answer to a question was obvious from others in the questionnaire, the missing answer was entered on the tape. To take an example from the 1970 survey, if item 62a ("Is it necessary for you to make any regular arrangements for the care of your child(ren) while you are working?") was blank, but legitimate entries appeared in item 62b and 62c ("What arrangements have you made?" and "What is the cost of these child care arrangements?"), a "Yes" was inserted in 62a since 62b and c could have been filled only if the answer to 62a was "Yes." Therefore, the assumption was made that either the key punch operator had failed to punch the item or the interviewer had failed to record it.

APPENDIX B

INTERVIEW SCHEDULES

Budget Bureau No. 41-R2423; Approval Expires December 31, 1973

FORM **LGT-401**
(12-1-67)

U.S. DEPARTMENT OF COMMERCE
BUREAU OF THE CENSUS

NATIONAL LONGITUDINAL SURVEYS

SURVEY OF WORK EXPERIENCE OF FEMALES 14-24

1968

NOTICE – Your report to the Census Bureau is confidential by law (Title 13, U.S. Code). It may be seen only by sworn Census employees and may be used only for statistical purposes.

1. Control No.

2. Line number of respondent__________

3. Name

4. Address

5. Interviewed by | Code

RECORD OF CALLS AND METHODS OF LOCATING RESPONDENT

Date	Time	Comments
1.	a.m. p.m.	
2.	a.m. p.m.	
3.	a.m. p.m.	
4.	a.m. p.m.	

	Successful	Unsuccessful
☐ New occupants		
☐ Neighbors		
☐ Apartment house mgr.		
☐ Post office		
☐ School		
☐ Other – *Specify*		

RECORD OF INTERVIEW

Interview time		Date completed	Comments
Began	Ended		
a.m. p.m.	a.m. p.m.		

NONINTERVIEW REASON

1 ☐ Temporarily absent
2 ☐ Unable to locate respondent – *Specify*
3 ☐ Refused
4 ☐ Other – *Specify*

TRANSCRIPTION FROM HOUSEHOLD RECORD CARD

Item 2 – Identification code

____

Item 13 – Marital status

1 ☐ Married spouse present
2 ☐ Married spouse absent
3 ☐ Widowed
4 ☐ Divorced
5 ☐ Separated
6 ☐ Never married

Item 15 – Age

____

Item 16 – Race

1 ☐ White
2 ☐ Negro
3 ☐ Other

Item 22 – Tenure

1 ☐ Owned or being bought
2 ☐ Rented
3 ☐ No cash rent

Items 23 – 25 – Land usage

1 ☐ A
2 ☐ B
3 ☐ C
4 ☐ D
5 ☐ E

IF RESPONDENT HAS MOVED, ENTER NEW ADDRESS

Number and street | City

County | State | ZIP code

1. EDUCATION AND TRAINING

1. Are you attending or enrolled in regular school?	1. 1 ☐ Yes – ASK 2 2 ☐ No → When were you last enrolled? ______ Month–Year } SKIP to 4
2a. What grade are you attending?	2a. 1 Elem 1 2 3 4 5 6 7 8 – SKIP to Check Item C, page 7 2 High 1 2 3 4 3 College 1 2 3 4 5 6+
b. Are you enrolled as a full-time or part-time student?	b. 1 ☐ Full time 2 ☐ Part time x ☐
0 ☐ Respondent is 14 – *SKIP to Check Item C, page 7* 3. Since you turned 14, were you ever out of school for an entire year?	3. 1 ☐ Yes – *SKIP to 8* 2 ☐ No – *SKIP to Check item A*
4. What is the highest year of regular school you have completed?	4. x ☐ 0 None 0 – *SKIP to 34, page 10* 1 Elem 1 2 3 4 5 6 7 8 2 High 1 2 3 4 3 College 1 2 3 4 5 6+
5. How old were you when you last attended regular school?	5. x ☐ Age ______
6. Why would you say you decided to end your education at that time?	6. 0 ☐ Completed 4 or more years of college 1 ☐ Had to work 2 ☐ Couldn't afford college 3 ☐ Lack of ability 4 ☐ Disliked school 5 ☐ Marriage 6 ☐ Pregnancy 7 ☐ Other – *Specify* ______
7. Between the time you turned 14 and ____ (Age mentioned in 5), were you ever out of school for an entire school year or more?	7. 1 ☐ Yes – *ASK 8* 2 ☐ No – *SKIP to Check Item A*
8. How old were you? (If more than once, ask about most recent time.)	8. x ☐ Age ______
9. Why were you out of school at that time?	9.
10. Why did you return to school?	10.
CHECK ITEM A	1 ☐ Respondent is a college graduate – *SKIP to 13a* 2 ☐ Respondent is enrolled in school – *SKIP to 17a, page 4* 3 ☐ All others – *ASK 11a*
11a. Do you feel that not having more education has hurt you in any way?	11a. x ☐ 1 ☐ Yes 2 ☐ No
b. Why do you feel this way?	b.
12a. If you could, would you like to get more education or training?	12a. 1 ☐ Yes – *ASK b* 2 ☐ No – *SKIP to 13a*
b. What kind of courses or training would you like to take?	b. 1 ☐ Technical (vocational) training – *Specify type* ______ 2 ☐ Complete high school 3 ☐ Go to college 4 ☐ Other – *Specify* ______
c. Do you expect that you actually will get this education or training?	c. 1 ☐ Yes When? ______ 2 ☐ No Why not? ______ 3 ☐ Don't know

I. EDUCATION AND TRAINING – Continued

13a. Aside from regular school, did you ever take a full-time program lasting two weeks or more at a training course sponsored by an employer?	13a. 1 ☐ Yes – *ASK b* 2 ☐ No – *SKIP to 14a*
b. What type of training did you take?	b.
c. How long did this training last?	c. Months ______
d. How many hours per week did you spend on this training?	d. 1 ☐ 1 – 4 3 ☐ 10 – 14 5 ☐ 20 or more 2 ☐ 5 – 9 4 ☐ 15 – 19
e. Did you finish or complete this course?	e. 1 ☐ Yes – *SKIP to g* 2 ☐ No – *ASK f* 3 ☐ Still going on – *SKIP to 14a*
f. Why didn't you complete the program?	f.
g. Do you use this training on your present (last) job?	g. 1 ☐ Yes 2 ☐ No 3 ☐ Never worked
14a. Aside from regular school, did you ever take any commercial, vocational, or skill training, such as typing, practical nursing, cosmetology, or anything else, not counting on-the-job training given informally?	14a. 1 ☐ Yes – *ASK b* 2 ☐ No – *SKIP to 15a*
b. Why did you decide to get more training?	b.
c. What type of training did you take?	c.
d. How long did this training last?	d. Months ______
e. How many hours per week did you spend on this training?	e. 1 ☐ 1 – 4 3 ☐ 10 – 14 5 ☐ 20 or more 2 ☐ 5 – 9 4 ☐ 15 – 19
f. Did you finish or complete the program?	f. 1 ☐ Yes – *SKIP to h* 2 ☐ No – *ASK g* 3 ☐ Still going on – *SKIP to 15a*
g. Why didn't you complete the program?	g.
h. Do you use this training on your present (last) job?	h. 1 ☐ Yes 2 ☐ No 3 ☐ Never worked
15a. Since you stopped going to school full time, have you taken any additional general courses in a regular school such as English, math, science, or art?	15a. 1 ☐ Yes – *ASK b* 2 ☐ No – *SKIP to 16a*
b. Why did you decide to get more education?	b.
c. What type of course did you take?	x ☐ c.
d. How long did this course last?	d. Months ______
e. How many hours per week did you spend on this course?	e. 1 ☐ 1 – 4 3 ☐ 10 – 14 5 ☐ 20 or more 2 ☐ 5 – 9 4 ☐ 15 – 19
f. Did you finish or complete this course?	f. 1 ☐ Yes – *SKIP to h* 2 ☐ No – *ASK g* 3 ☐ Still going on – *SKIP to 16a*
g. Why didn't you complete this course?	g.
h. Do you use this education on your present (last) job?	h. 1 ☐ Yes 2 ☐ No 3 ☐ Never worked

I. EDUCATION AND TRAINING – *Continued*

16a. Have you ever obtained a certificate required for practicing any profession or trade, such as teacher, registered nurse, practical nurse, or beautician?	**16a.** 1 ☐ Yes – *ASK 16b* 2 ☐ No – *SKIP to 17a*
b. What type of certificate was it?	**b.**
c. Is this certificate currently valid?	**c.** 1 ☐ Yes 2 ☐ No

II. HIGH SCHOOL EXPERIENCE

x ☐ Never attended high school – *SKIP to 34, page 10*

17a. What is the name of the high school you attend (last attended)?	**17a.**
b. What is this high school's address?	**b.** Street City County State ZIP code
c. Is this school public or private?	**c.** 1 ☐ Public 2 ☐ Private
d. In what years have you been (were you) enrolled there?	**d.** From ______ Month-year To ______ Month-Year
e. What kind of curriculum are (were) you enrolled in (during your last year in high school) – is (was) it vocational, commercial, college preparatory or general?	**e.** 1 ☐ Vocational → *What are you specializing (did you specialize) in?* 2 ☐ Commercial ______ 3 ☐ College Preparatory 4 ☐ General ______
18a. Are you taking (did you take) any courses in typing or shorthand in high school?	**18a.** 1 ☐ Yes – *ASK 18b – c* 2 ☐ No – *SKIP to Check Item B*
b. What courses are you taking (did you take)?	**b.** 1 ☐ Typing 2 ☐ Shorthand 3 ☐ Both
c. How many years have you taken (typing, shorthand)?	**c.** Typing ______ Shorthand ______

CHECK ITEM B

1 ☐ Respondent has completed one or more years of college (Q2 or 4) – *SKIP to 24a, page 6*
2 ☐ Respondent has completed less than one year of high school – *SKIP to Check Item C, page 7*
3 ☐ All others – *ASK 19a*

19a. What high school subject do (did) you enjoy the most?	**19a.** x ☐ 0 ☐ None – *SKIP to 20a*
b. What is the main reason you enjoy (enjoyed) . . .?	**b.** 1 ☐ Interested 2 ☐ Find it easy 3 ☐ Do well in it 4 ☐ Prepares for future job or career 5 ☐ Prepares for homemaking ☐ Other – *Specify* ______
20a. What high school subject do (did) you dislike the most?	**20a.** 0 ☐ None – *SKIP to 21a*
b. What is the main reason you dislike (disliked) . . .?	**b.** 1 ☐ Difficult; hard work 2 ☐ Felt it a waste of time 3 ☐ Do poorly in it 4 ☐ Boring ☐ Other – *Specify* ______

II. HIGH SCHOOL EXPERIENCE – Continued

21a. IN YOUR LAST FULL YEAR IN HIGH SCHOOL, how many hours per week, on the average, did you spend doing your homework, at home or anywhere else?	21a. 0 ☐ None 1 ☐ 1 – 4 2 ☐ 5 – 9 3 ☐ 10 – 14 4 ☐ 15 – 19 5 ☐ 20 or more
b. Where did you normally do most of your homework?	b. 1 ☐ School library, study hall or homeroom 2 ☐ At home 3 ☐ At friend's home 4 ☐ Other – *Specify* ________
c. Were there any conditions at this place which made it hard for you to study?	c. 1 ☐ Yes – *ASK d* 2 ☐ No – *SKIP to e*
d. What were these conditions?	d. 1 ☐ Noise (distractions) 2 ☐ Lacks necessary facilities (desk, room, etc.) 3 ☐ Other – *Specify* ________
e. IN YOUR LAST FULL YEAR OF HIGH SCHOOL, did you take part in any extra-curricular activities at school, such as sports, dramatics, publications, music, or clubs?	e. 1 ☐ Yes – *ASK f* 2 ☐ No – *SKIP to 22*
f. How many hours per week, on the average, did you spend on these activities?	f. 1 ☐ 1 – 4 2 ☐ 5 – 9 3 ☐ 10 – 14 4 ☐ 15 – 19 5 ☐ 20 or more
g. What was your favorite extra-curricular activity?	g. 1 ☐ Sports 2 ☐ Publications 3 ☐ Dramatics 4 ☐ Music 5 ☐ Other clubs 6 ☐ Other – *Specify* ________
22. When you were not involved in high school activities or studying, what activity took up most of your extra time during your last full high school year?	22. 1 ☐ Non-school related sports 2 ☐ Hobby 3 ☐ Reading 4 ☐ Work for pay 5 ☐ Helping at home 6 ☐ Other – *Specify* ________
23. How do (did) you feel about your high school experience?	23. Do (did) you — 1 ☐ like it very much? 2 ☐ like it fairly well? 3 ☐ dislike it somewhat? 4 ☐ dislike it very much?

III COLLEGE EXPERIENCE

x ☐ Respondent has never attended college (Q. 2 or 4) – *SKIP to Check Item C, page 7*

24a. What are the names of all the colleges you have attended?

ASK FOR EACH SCHOOL ATTENDED

	b. When were you enrolled there?		c. Where is this school located?	
Name of college	From – Month/Year	To – Month/Year	City	State
1.				
2.				
3.				
4.				

d. What degree did you receive? (If more than one, record the most recent)

d. ______________

0 ☐ Did not receive degree – *SKIP to g*

e. In what field did you receive your degree?

e. ______________

f. Why did you decide to major in . . . (field of study mentioned in 24e)?

f.
1 ☐ Interested in it
2 ☐ Do well in it
3 ☐ Advised to do so
4 ☐ Good job possibilities
5 ☐ Prepare for homemaking

6 ☐ Other – *Specify* ______________

g. What is (was) the full-time tuition per year at (most recent school given in 24a)?

g. $ ______________

h. Do (did) you have a scholarship, fellowship, assistantship, or other type of financial aid while enrolled at (most recent school given in 24a)?

h. 1 ☐ Yes
  2 ☐ Scholarship or fellowship
  3 ☐ Assistantship (teaching, research, etc.)
  4 ☐ Loan

  5 ☐ Other – *Specify* ______________

6 ☐ No – *SKIP to j*

i. How much is (was) it?

i. ______________

j. Why did you decide to continue your education beyond high school?

j. 1 ☐ College degree necessary for her work
2 ☐ College degree necessary for success
3 ☐ Wanted more education
4 ☐ Other – *Specify* ______________

x ☐ Respondent has not completed one year of college (Q. 2 or 4) – *Skip to 30, page 8*

25a. What field of study in college do (did) you enjoy the most?

25a. ______________

1 ☐ None – *SKIP to 26a*

b. What is the main reason you enjoy (enjoyed). . .?

b. 1 ☐ Interested in it
2 ☐ Do well in it
3 ☐ Find it easy
4 ☐ Prepares for future job or career
5 ☐ Prepares for homemaking

6 ☐ Other – *Specify* ______________

III. COLLEGE EXPERIENCE – *Continued*

26a. What field of study in college do (did) you dislike the most?	**26a.** ____________ 0 ☐ None – *SKIP to 27*
b. What is the main reason you dislike (disliked). . .?	**b.** 1 ☐ Difficult 2 ☐ Felt it a waste of time 3 ☐ Does poorly in it 4 ☐ Boring 5 ☐ Other – *Specify* ____________
27. How do (did) you feel about your college experience?	**27.** Do (did) you –– 1 ☐ like it very much? 2 ☐ dislike it very much? 3 ☐ like it fairly well? 4 ☐ dislike it somewhat?
x ☐ Respondent is attending college (Q. 2) – *SKIP to 30* **28.** Would you like to receive more education?	**28.** 1 ☐ Yes – *SKIP to 30* 2 ☐ No – *SKIP to 34, page 10*

IV. EDUCATIONAL GOALS OF THOSE ENROLLED IN SCHOOL

CHECK ITEM C	1 ☐ Respondent is enrolled in school (Q.1) – *ASK 29a* 2 ☐ Other – *SKIP to 34, page 9*

29a. How much more education would you like to get?
(If "None," mark current grade and follow appropriate skip pattern)

High School

- 0 ☐ Less than high school (*ASK b*)
- 1 ☐ 1 year } *ASK b*
- 2 ☐ 2 years } *ASK b*
- 3 ☐ 3 years } *ASK b*
- 4 ☐ 4 years – *SKIP to c*

College

- 5 ☐ 2 years (complete junior college or equivalent } *SKIP to d*
- 6 ☐ 4 years (graduate from 4-year college) } *SKIP to d*
- 7 ☐ 6 years (obtain Master's degree or equivalent) } *SKIP to d*
- 8 ☐ 7 + years (obtain Ph. D. or professional degree) (M.D., Law, etc.) } *SKIP to d*

b. Why don't you want to complete high school?	**b.** ____________
c. What do you expect to do when you leave school?	**c.** 1 ☐ Go to work 2 ☐ Get married 3 ☐ Other – *Specify* ____________ } *SKIP to Check Box after 33c*
d. What college would you like to attend?	**d.** Name ____________ Location (City and State) ____________ 9 ☐ Undecided
e. What field of study would you like to take in college?	**e.** ____________ 99 ☐ Don't know – *SKIP to 31*
f. Why would you like to go into this field of study?	**f.** 1 ☐ I'm interested in it, I enjoy it 2 ☐ It prepares for vocation that pays well, is secure 3 ☐ Other – *Specify* ____________ } *SKIP to 31*

IV. EDUCATIONAL GOALS OF THOSE ENROLLED IN SCHOOL – Continued

30. How much more college would you like to get?	**30.** 5 ☐ 2 years (complete junior college or equivalent) 6 ☐ 4 years (graduate from four-year college) 7 ☐ 6 years (obtain Master's degree or equivalent) 8 ☐ 7+ years (obtain Ph.D. or professional degree) (M.D., Law, etc.)

31. As things now stand, how much more education do you think you will actually get?

High School	College
1 ☐ 1 year	5 ☐ 2 years (complete Junior College or equivalent)
2 ☐ 2 years	6 ☐ 4 years (graduate from 4-year college)
3 ☐ 3 years	7 ☐ 6 years (obtain Master's degree or equivalent)
4 ☐ 4 years	8 ☐ 7+ years (obtain Ph.D. or professional degree) (M.D., Law, etc.)

CHECK ITEM D	Amount recorded in 31 is: 1 ☐ Same or greater than amount given in 29a or 30 – *ASK 32a* 2 ☐ Less than amount given in 29a or 30 – *ASK 32b*

32a. How will you pay for this additional education?	**32a.** 1 ☐ Scholarship 2 ☐ Loan 3 ☐ Parents 4 ☐ Work 5 ☐ Don't know, not sure 6 ☐ Other – *Specify* ______ *SKIP to 33a*
b. Why do you think you will actually get less education than you would like?	**b.** 1 ☐ Too expensive; lack of sufficient funds 2 ☐ Difficulty in getting into college 3 ☐ Family obligations 4 ☐ Have to go to work 5 ☐ Other – *Specify* ______
33a. What do you expect to do when you complete your education?	**33a.** 1 ☐ Go to work – *ASK c* 2 ☐ Get married – *ASK b* 3 ☐ Other – *Specify* *GO to Check Box after 33c*
b. Do you expect to work when you are first married?	**b.** 1 ☐ Yes – *ASK c* 2 ☐ No – *GO to Check Box after 33c* 9 ☐ Don't know
c. What kind of work would you like to do?	**c.**

While answering Section IV was another person present?

1 ☐ Yes 2 ☐ No – *Go to 34*

Would you say this person influenced the respondent's answers?

1 ☐ Yes 2 ☐ No

NOTES

V. CURRENT LABOR FORCE STATUS

34. What were you doing most of LAST WEEK; working, going to school, keeping house or something else?

1 ☐ WK – Working – *SKIP to 35b*
2 ☐ J – With a job but not at work
3 ☐ LK – Looking for work
4 ☐ S – Going to school
5 ☐ KH – Keeping house
6 ☐ U – Unable to work – *SKIP to 38a*
7 ☐ OT – Other – *Specify*

____

____

35c. Do you USUALLY work 35 hours or more a week at this job?

1 ☐ Yes – What is the reason you worked less than 35 hours LAST WEEK?

2 ☐ No – What is the reason you USUALLY work less than 35 hours a week?

(Mark the appropriate reason)

01 ☐ Slack work
02 ☐ Material shortage
03 ☐ Plant or machine repair
04 ☐ New job started during week
05 ☐ Job terminated during week
06 ☐ Could find only part-time work
07 ☐ Labor dispute
08 ☐ Did not want full-time work
09 ☐ Full-time work week under 35 hours
10 ☐ Attends school
11 ☐ Holiday (legal or religious)
12 ☐ Bad weather
13 ☐ Own illness
14 ☐ Illness of family member
15 ☐ On vacation
16 ☐ Too busy with housework
17 ☐ Personal business
18 ☐ Other – *Specify*

____

____

(If entry in 35c, SKIP to 39a and enter job worked at last week)

35a. Did you do any work at all LAST WEEK, not counting work around the house?

1 ☐ Yes   X ☐ No – *SKIP to 36a*

b. How many hours did you work LAST WEEK at all jobs? ________

CHECK ITEM E

Respondent worked –

1 ☐ 49 hours or more–*SKIP to 39a and enter job worked at last week*

2 ☐ 1 – 34 hours – *ASK c*

3 ☐ 35 – 48 hours–*ASK d-e*

d. Did you lose any time or take any time off from work LAST WEEK for any reason such as illness, holiday, or slack work?

1 ☐ Yes – How many hours did you take off? ______

2 ☐ No

NOTE – Correct item 35b if lost time not already deducted; if item 35b is reduced below 35 hours, ask 35e, otherwise skip to 39a.

e. Did you work any overtime or at more than one job LAST WEEK?

1 ☐ Yes – How many extra hours did you work? ______

2 ☐ No

NOTE – Correct item 35b if extra hours not already included and skip to 39a

(If "J" in 34 SKIP to 36b)

36a. Did you have a job or business from which you were temporarily absent or on layoff last week?

1 ☐ Yes – *ASK b*

X ☐ No – *SKIP to 37a*

b. Why were you absent from work LAST WEEK?

1 ☐ Own illness
2 ☐ Illness of family member
3 ☐ On vacation
4 ☐ Bad weather
5 ☐ Labor dispute
6 ☐ New job to begin within 30 days – *ASK 37c and 37d(2)*
7 ☐ Temporary layoff (less than 30 days) } *ASK 37d (3)*
8 ☐ Indefinite layoff (more than 30 days or no definite recall date) } *ASK 37d (3)*
9 ☐ School Interfered
10 ☐ Too busy with housework, personal business
11 ☐ Other – *Specify*

____

c. Are you getting wages or salary for any of the time off LAST WEEK?

1 ☐ Yes
2 ☐ No
3 ☐ Self-employed

d. Do you usually work 35 hours or more a week at this job?

1 ☐ Yes   2 ☐ No

(GO to 39a and enter job held last week.)

Notes

V. CURRENT LABOR FORCE STATUS – Continued

(If "LK" in item 34, SKIP to 37b)

37a. Have you been looking for work during the past 4 weeks?

x ☐ Yes – ASK b   1 ☐ No – SKIP to 38a

b. What have you been doing in the last 4 weeks to find work?

(Mark all methods used; do not read list)

x ☐ Nothing – *SKIP to 38a*
0 ☐ Checked with school employment service (or counselor)
1 ☐ Checked with State employment agency
2 ☐ Checked with private employment agency
3 ☐ Checked directly with employer
4 ☐ Placed or answered newspaper ads
5 ☐ Checked with friends or relatives
6 ☐ Other – *Specify – For example, MDTA, Union, or professional register, etc.*

____

c. Why did you start looking for work? Was it because you lost or quit a job at that time or was there some other reason?

1 ☐ Lost job
2 ☐ Quit job
3 ☐ Left school
4 ☐ Wanted temporary work
5 ☐ Other – *Specify* _______________

d. 1. How many weeks have you been looking for work?
2. How many weeks ago did you start looking for a job?
3. How many weeks ago were you laid off?

Number of weeks _______________

e. Have you been looking for full-or part-time work?

1 ☐ Full-time   2 ☐ Part-time

f. Is there any reason why you could not take a job LAST WEEK?

1 ☐ Yes – *Mark reason*
  1 ☐ Needed at home
  2 ☐ Temporary illness
  3 ☐ School
  4 ☐ Already has job
  5 ☐ Other – *Specify* _______________
2 ☐ No

g. When did you last work at a regular full-or part-time job or business lasting two consecutive weeks or more?

1 ☐ 1963 or later

Month _______________ Year _______________ } *SKIP to 39a and enter last job*

2 ☐ Before 1963 – *SKIP to 39a and enter last job*
3 ☐ Never worked 2 weeks or more }
4 ☐ Never worked at all } *SKIP to 44a, page 14*

38a. When did you last work at a regular full- or part-time job or business lasting two consecutive weeks or more?   x ☐

1 ☐ 1963 or later

Month _______________ Year _______________

2 ☐ Before 1963
3 ☐ Never worked 2 weeks or more }
4 ☐ Never worked at all } *SKIP to 44a, page 14*

b. On this job, did you usually work 35 hours or more per week?

1 ☐ 35 or more
2 ☐ Less than 35

c. Why did you leave that job?

1 ☐ To get married
2 ☐ Husband wanted her to quit
3 ☐ Husband transferred; moved
4 ☐ Own health
5 ☐ Pregnancy
6 ☐ Health of family member
7 ☐ Devote more time to family
8 ☐ School
9 ☐ Seasonal job completed
10 ☐ Slack work or business conditions
11 ☐ Temporary nonseasonal job completed
12 ☐ Unsatisfactory work arrangement (hours, pay, etc.)
13 ☐ Other – *Specify*

____

39a. For whom did you work? (Name of company, organization, or other employer)

____

b. Where is . . . located?

City _______________
State _______________

c. What kind of work were you doing? (For example: teaching, waitress, sales clerk, typist, etc.)   ☐☐☐

d. What kind of business or industry is this? (For example: TV and radio manufacturer, retail shoe store, State Labor Department, etc.)   ☐☐☐

e. Were you –

1 ☐ P – an employee of PRIVATE company, business, or individual for wages, salary, or commission? } *ASK 40a*
2 ☐ G – a GOVERNMENT employee (Federal, State, County, or local)? } *ASK 40a*
3 ☐ O – SELF-EMPLOYED in OWN business, professional practice, or farm?
  Is this business incorporated?
  1 ☐ Yes   2 ☐ No } *SKIP to 40b*
4 ☐ WP – Working WITHOUT PAY in family business or farm? } *SKIP to 40b*

V. CURRENT LABOR FORCE STATUS – Continued

40a. How did you find out about this job?	**40a.** 0 ☐ Checked with school employment agency (or counselor) 1 ☐ Checked with State employment agency 2 ☐ Checked with private employment agency 3 ☐ Checked directly with employer 4 ☐ Placed or answered newspaper ads 5 ☐ Checked with friends or relatives 6 ☐ Other – *Specify* ______
b. When did you start working at this job or business?	**b.** Year ______ or (if 1967) Month ______

CHECK ITEM F

1. ☐ Respondent has not worked since January 1967 -- *SKIP to 44a, page 14*
2. ☐ All others. – *ASK 41a*

41a. How much time does it usually take you to travel from your house to your job (entry in 39a)?	**41a.** ☐☐☐ ______
b. What means of transportation do you usually use to get to work? *Mark as many boxes as apply.*	b. 1 ☐ Own auto – *ASK 41c* 2 ☐ Ride with someone else 3 ☐ Bus or streetcar 4 ☐ Subway or elevated } *ASK 41d* 5 ☐ Railroad 6 ☐ Taxicab 7 ☐ Walked only – *SKIP to Check Item G* 8 ☐ Other means – *Specify* ______ ______ *SKIP to Check Item G*
41c. 1. What is the total cost of any parking fees or tolls you have to pay (round trip)?	**41c. 1.** x ☐ 0 ☐ No cost $ ______ per ______
2. How many miles do you go by car (round trip)? ☐ Only box 1 marked in 41b – *SKIP to Check Item G* ☐ Box 1 and any of boxes 2–6 marked in 41b – *ASK 41d*	2. ______ Miles
d. What is the total cost of the round trip by (means of transportation given in b)?	d. 0 ☐ No cost $ ______ per ______

V. CURRENT LABOR FORCE STATUS – Continued

CHECK ITEM G	1 ☐ "P" or "G" in item 39e – *ASK 42a* 2 ☐ "O" or "WP" in item 39e – *SKIP to Check Item H*

42a. How much do (did) you earn at your (present, last) job?	**42a.** $ ________ per ________
b. How many hours a week do (did) you usually work at this job?	**b.** Hours ________
c. Do (did) you receive extra pay when you work(ed) over a certain number of hours a week?	**c.** 1 ☐ Yes – *ASK 42d* 2 ☐ No 3 ☐ No – compensatory time only 4 ☐ Never work overtime (2–4) *SKIP to Check Item H*
d. After how many hours do (did) you receive extra pay?	**d.** 1 ☐ Hours per day ____ 2 ☐ Hours per week ____
e. For all hours worked over (entry in 42d) per week, are (were) you paid straight time, time and one-half, double time, or is there some other arrangement? *Mark as many as apply and explain.*	**e.** 1 ☐ Straight time 2 ☐ Time and one-half 3 ☐ Double time 4 ☐ Compensating time off 5 ☐ Other – *Specify* ________

CHECK ITEM H	1 ☐ Respondent is in Labor Force Group A (WK in 34, or "Yes" in 35a or 36a) and entry in 40b is before January 1967 – *ASK 43a* 2 ☐ Respondent is in Labor Force Group A and entry in 40b is January 1967 or later – *SKIP to 43c* 3 ☐ All others – *SKIP to 44a*

43a. Have you ever done any other kind of work for (name of employer in 39a)?	**43a.** 1 ☐ Yes – *ASK b* 2 ☐ No – *SKIP to g* X ☐
b. What kind of work were you doing a year ago at this time?	**b.** ________ 1 ☐ Same as current job – *SKIP to 43g*
c. Were you working a year ago at this time?	**c.** 1 ☐ Yes – *ASK d* 2 ☐ No – *SKIP to 44a*
d. For whom did you work then?	**d.**
e. What kind of business was this?	**e.**
f. What kind of work were you doing?	**f.**
g. Does the work you do now require more skill than the work you were doing a year ago?	**g.** 1 ☐ More 2 ☐ Less 3 ☐ The same amount
h. Do you have more responsibility in the work you are doing now than in the work you were doing a year ago?	**h.** 1 ☐ More 2 ☐ Less 3 ☐ The same amount

Notes

VI. PREVIOUS WORK EXPERIENCE

44a. In how many different weeks did you work either full or part-time in 1967 (not counting work around the house)? Count any week where you did any work at all. *(Include paid vacations and paid sick leave.)*	**44a.** x ☐ None – *SKIP to 46a* Weeks ____________
b. Were these weeks during summer vacation from school or during the school year?	**b.** 1 ☐ Summer vacation only 2 ☐ School year only 3 ☐ Both 4 ☐ Respondent not in school 5 ☐ Other – *Specify* ____________
c. During the weeks that you worked in 1967, how many hours per week did you usually work? *Specify actual number.*	**c.** Number of hours ____________
CHECK ITEM I	1 ☐ 52 weeks in 44a – *ASK 45a* 2 ☐ 1 – 51 weeks in 44a – *SKIP to 45b*
45a. Did you lose any full weeks of work in 1967 because you were on layoff from a job, lost a job, or for some other reason?	**45a.** 1 ☐ Yes – How many weeks ____________ *Adjust item 44a and SKIP to 45c* 2 ☐ No – *SKIP to Check Item K*
b. You say you worked (entry in 44a) weeks in 1967. In any of the remaining (52 weeks minus entry in 44a) weeks were you looking for work or on layoff from a job?	**b.** x ☐ 1 ☐ Yes – How many weeks? ____________ 2 ☐ No – *SKIP to 47*
c. Were all of these weeks in one stretch?	**c.** 1 ☐ Yes, 1 2 ☐ No, 2 3 ☐ No, 3+
d. Were these weeks during summer vacation from school or during the school year?	**d.** 1 ☐ Summer vacation only 2 ☐ School year only 3 ☐ Both 4 ☐ Respondent not in school ☐ Other – *Specify* ____________ *SKIP to 46d*
46a. Even though you did not work in 1967, did you spend any time trying to find work or on layoff from a job?	**46a.** 1 ☐ Yes – *ASK b* 2 ☐ No – *SKIP to Check Item J*
b. How many different weeks (if any) were you looking for work or on layoff from a job?	**b.** Weeks ____________ 00 ☐ None
c. Were these weeks during summer vacation from school or during the school year?	**c.** 1 ☐ Summer vacation only 2 ☐ School year only 3 ☐ Both 4 ☐ Respondent not in school ☐ Other – *Specify* ____________
d. What did you do to try to find work?	**d.** 0 ☐ Checked with school employment service (or counselor) 1 ☐ Checked with State employment agency 2 ☐ Checked with private employment agency 3 ☐ Checked directly with employer 4 ☐ Placed or answered newspaper ads 5 ☐ Checked with friends and relatives 6 ☐ Other – *Specify* ____________

VI. PREVIOUS WORK EXPERIENCE – *Continued*

CHECK ITEM J	1 ☐ All weeks of 1967 are accounted for – *SKIP to Check Item K* 2 ☐ Other – *ASK 47*
47. Now let me see. During 1967 there were about (52 weeks minus entries in 44a, 45a, 45b or 46b) weeks that you were not working or looking for work. What would you say was the main reason that you were not looking for work during these weeks?	**47.** 1 ☐ Didn't want to work x ☐ 2 ☐ Ill or disabled and unable to work 3 ☐ Birth of child 4 ☐ In school 5 ☐ Too busy keeping house 6 ☐ Other – *Specify* ________
CHECK ITEM K	1 ☐ Respondent has not worked at a job since January 1967 – *SKIP to Check Item L* Respondent has worked at a job since January 1967 – 2 ☐ "O" in 39e – *ASK 48* 3 ☐ "P," in "G," or "WP" in 39e – *SKIP to 49*
48. Did you work for anyone (else) for wages or salary in 1967?	**48.** 1 ☐ Yes – *ASK 49* 2 ☐ No – *SKIP to Check Item L*
49. In 1967, for how many different employers did you work?	**49.** Number of employers ________ 0 ☐ Did not work in 1967
x ☐ Respondent never attended a full year of high school – *SKIP to Check Item L*	
50a. During your last full year in high school, did you hold a regular job that lasted two weeks or more (not a summer job)?	**50a.** 1 ☐ Yes – *ASK b* 2 ☐ No – *SKIP to Check Item L*
b. For whom did you work?	b.
c. What kind of work did you do? *Specify kind of work.*	c. ☐☐☐ x ☐ Same as current (last) job – *SKIP to Check Item L*
d. What kind of business or industry is that?	d. ☐☐☐
e. Where is (was) this job located?	e. City ________ State ________
f. How did you find this job?	f. 0 ☐ Checked with school employment service (or counselor) 1 ☐ Checked with State employment agency 2 ☐ Checked with private employment agency 3 ☐ Checked directly with employer 4 ☐ Placed or answered newspaper ads 5 ☐ Checked with relatives or friends 6 ☐ Other – *Specify* ________
CHECK ITEM L	Respondent is enrolled in school this year and – 1 ☐ In Labor Force Group A, usually works 35 hours or more a week – *ASK 51a* 2 ☐ All others in Labor Force Group A – *SKIP to 69, page 20* 3 ☐ In Labor Force Group B – *SKIP to 60, page 19* 4 ☐ All others – *SKIP to 66a, page 20* 5 ☐ Respondent is not enrolled in school – *ASK 51a*
51a. Now I'd like to know about the first job at which you worked at least one month after you stopped going to school full time. For whom did you work?	**51a.** x ☐ Same as current (last) job – *SKIP to Check Item M, page 17*
b. What kind of business or industry was that?	b. ☐☐☐

VI. PREVIOUS WORK EXPERIENCE – Continued

51c. Were you –	**51c.**	
1. An employee of PRIVATE company, business, or individual for wages, salary or commission?	1 ☐ P – Private	
2. A GOVERNMENT employee (Federal, State, county, or local)?	2 ☐ G – Government	
3. Self-employed in OWN business, professional practice, or farm?	3 ☐ O – Self-employed	
4. Working WITHOUT PAY in family business or farm.	4 ☐ WP – Without pay	
d. Where was that job located?	d. City or county	State
e. How did you find this job?	e. 1 ☐ Checked with school employment service (or counselor) 2 ☐ Checked with State employment agency 3 ☐ Checked with private employment agency 4 ☐ Checked directly with employer 5 ☐ Placed or answered newspaper ads 6 ☐ Checked with relatives and friends 7 ☐ Other – *Specify* ________	
f. Did you usually work 35 hours or more a week?	f. 1 ☐ 35 hours or more 2 ☐ Less than 35 hours	
g. When did you START working at that job?	g. Month	Year
h. When did you STOP working at that job?	h. Month	Year
i. Then you worked there for ("h" minus "g") ________ years, is this correct?	i. 1 ☐ Yes 2 ☐ No – Correct dates in "g" and "h" as necessary	
j. What kind of work were you doing WHEN YOU STARTED TO WORK THERE?	j.	☐☐☐
k. What kind of work were you doing JUST BEFORE YOU LEFT THIS JOB?	k.	☐☐☐
l. How did you happen to leave this job?	l.	

Notes

VII. WORK ATTITUDES AND JOB PLANS

CHECK ITEM M

1 ☐ Respondent is in Labor Force Group A – *ASK 52*
2 ☐ Respondent is in Labor Force Group B – *SKIP to 60, page 19*
3 ☐ All others – *SKIP to 66a, page 20*

LABOR FORCE GROUP A

52. How do you feel about the job you have now?

Respondent's comments ______________________

52. Do you –

x ☐

1 ☐ Like it very much?
2 ☐ Like it fairly well?
3 ☐ Dislike it somewhat?
4 ☐ Dislike it very much?
(Enter respondent's comments)

53a. What are the things you like best about your job? – *After the respondent replies, ASK "Anything else?"*

1. ______________________
2. ______________________
3. ______________________

b. What are the things about your job that you don't like? – *After the respondent replies, ASK "Anything else?"*

1. ______________________
2. ______________________
3. ______________________

54. Suppose someone IN THIS AREA offered you a job in the same line of work you're in now. What would the wage or salary have to be for you to be willing to take it?
If amount given per hour, record dollars and cents. Otherwise, round to the nearest dollar.

54. $ ____________ per ________

1 ☐ I wouldn't take it at any conceivable pay
2 ☐ I would take a steady job at the same or less pay

Respondent's comments ______________________

☐ Respondent married – *SKIP to 56*

55. What if this job were in SOME OTHER PART OF THE COUNTRY. What would the wage or salary have to be for you to be willing to take it?

x ☐

55. $ ____________ per ________

1 ☐ I wouldn't take it at any conceivable pay
2 ☐ I would take a steady job at the same or less pay

Respondent's comments ______________________

☐ "O" checked in 39e – *SKIP to 58a*

56. If for some reason you were permanently to lose YOUR PRESENT JOB TOMORROW what would you do?

x ☐

56. 1 ☐ Look for work – *ASK 57a*
2 ☐ Take another job I know about
3 ☐ Stay at home
4 ☐ Return to school; get training
} *SKIP to 58a*
☐ Other – *Specify* ______________________ *SKIP to 58a*

Notes

VII. WORK ATTITUDES AND JOB PLANS – *Continued*

57a. What kind of work would you look for?	**57a.**
b. How would you go about looking for this kind of work?	**b.** 0 ☐ Check with school employment service (or counselor) 1 ☐ Check with State employment agency 2 ☐ Check with private employment agency 3 ☐ Check directly with employer 4 ☐ Place or answer newspaper ads 5 ☐ Check with friends and relatives 6 ☐ Other – *Specify* ________
c. Are there any particular companies in this area where you would apply? – *List names* 1. ________ 2. ________ 3. ________	**c.** 0 ☐ None – *SKIP to 58a* 1 ☐ Companies of a particular type Number of companies ________
d. Why do you mention these particular companies?	**d.**
58a. How long do you think you will continue to work at your present job?	**58a.** 1 ☐ Less than 1 year 2 ☐ 1 – 4 years } *ASK b* 3 ☐ 5 years or longer 4 ☐ As long as I can 5 ☐ Don't know } *SKIP to 59a*
b. What do you plan to do immediately after you stop working at your present job?	**b.** 1 ☐ Take another job I know about 2 ☐ Look for work } *ASK c – d* 3 ☐ Just stay home 4 ☐ Go to school, get additional training 5 ☐ Other – *Specify* } *SKIP to 59a*
c. What kind of work do you think you will (be doing) (look for)?	**c.**
d. Do you think it will be part-time or full-time work?	**d.** 1 ☐ Part time 2 ☐ Full time
☐ Respondent has no children in the household – *SKIP to 69, page 20* **59a.** Is it necessary for you to make any regular arrangements for the care of your child(ren) while you are working?	**59a.** 1 ☐ Yes – *ASK b and c* 2 ☐ No – Why not? ________ *SKIP to 69, page 20*
b. What arrangement have you made?	Child is cared for: x ☐ **b.** 1 ☐ In own home by relative 2 ☐ In own home by nonrelatives 3 ☐ In relative's home 4 ☐ In nonrelative's home 5 ☐ At school or group care center (day care center, day nursery, nursery school, after-school center, settlement house, etc.)
c. What is the cost of these child care arrangements?	**c.** 0 ☐ No cost x ☐ $ ________ per ________ *SKIP to 69, page 20*

VII. WORK ATTITUDES AND JOB PLANS – *Continued*

LABOR FORCE GROUP B **60.** What kind of work are you looking for?	☐☐☐ **60.**
61. How much would the job have to pay for you to be willing to take it?	**61.** $ ________ per ________ 9 ☐ Don't know
62. How many hours per week do you want to work?	**62.** Hours ________
63a. Are there any restrictions, such as hours or location of job that would be a factor in your taking a job?	**63a.** 1 ☐ Yes – *ASK b* 2 ☐ No – *SKIP to 64a*
b. What are these restrictions? ________________	
☐ Respondent has no children in the household. *SKIP to 65a* **64a.** Will it be necessary for you to make any special arrangements for the care of your child(ren), if you find a job?	**64a.** 1 ☐ Yes – *ASK b* 2 ☐ No – Why not? ________ *SKIP to 65a*
b. What arrangements will you make?	b. Child will be cared for: 1 ☐ In own home by relative 2 ☐ In own home by nonrelative 3 ☐ In relative's home 4 ☐ In nonrelative's home 5 ☐ At school or group care center (day care center, nursery school, after-school center, settlement house, etc.) 6 ☐ Don't know
☐ Respondent is attending school – *SKIP to 69* **65a.** What do you expect to be doing five years from now – working or something else?	x ☐ **65a.** 1 ☐ Working – *ASK b – c* 2 ☐ Staying home 3 ☐ Go to school, get additional training 4 ☐ Other – *Specify* ________ (2–4: *SKIP to 69, page 20*) 5 ☐ Don't know – *SKIP to 69, page 20*
b. What kind of work do you think you will be doing?	**b.** ☐☐☐
c. Do you think it will be part time or full time?	c. 1 ☐ Full time 2 ☐ Part time *SKIP to 69, page 20*

Notes

VII. WORK ATTITUDES AND JOB PLANS – Continued

LABOR FORCE GROUP C 66a. If you were offered a job by some employer IN THIS AREA, do you think you would take it?	66a. 1 ☐ Yes – *ASK b – g* 2 ☐ It depends. *Specify "on what" and ASK 66b – g* 3 ☐ No – *SKIP to 67*
b. What kind of work would it have to be?	b.
c. What would the wage or salary have to be? *If amount given per hour, record dollars and cents. Otherwise, round to the nearest dollar.*	c. $ ______________ per ______________
d. Are there any restrictions, such as hours or location of job that would be a factor in your taking the job?	d. 1 ☐ Yes – *ASK e* 2 ☐ No – *SKIP to f*
e. What are these restrictions?	
f. Why would you say you are not looking for such a job now?	f.
g. Do you expect to look for work within the next six months?	g. 1 ☐ Yes 2 ☐ No
x ☐ *Respondent has no children in the household – SKIP to 68a* 67. Would it be necessary for you to make any special arrangements for the care of your child(ren), if you were to take a job?	67. 1 ☐ Yes 2 ☐ No – Why not? 3 ☐ Don't know
x ☐ *Respondent is attending school – SKIP to 69* 68a. What do you expect to be doing five years from now – working or something else?	68a. 1 ☐ Working – *ASK b – c* 2 ☐ Staying home 3 ☐ Go to school, get additional training 4 ☐ Other – *Specify* ______________ SKIP to 69 5 ☐ Don't know
b. What kind of work do you think you will be doing?	b.
c. Do you think it will be part-time or full-time work?	c. 1 ☐ Full time 2 ☐ Part time
69. What would you say is more important to you in deciding what kind of work you want to go into, good wages or liking the work?	69. 1 ☐ Liking the work 2 ☐ Good wages

While answering Section VII was another person present?

1 ☐ Yes   2 ☐ No – *GO to 70*

Would you say this person influenced the respondent's answers?

1 ☐ Yes   2 ☐ No

Notes

VIII. HEALTH

70a. Does your health or physical condition limit your activities or the kind of work you can do?	**70a.** 1 ☐ Yes – *ASK 70b – d* 2 ☐ No – *SKIP to 71*
b. What physical or health problem do you have?	
c. In what way are your activities limited?	
d. How long have you been limited this way?	**d.** Months ______ Years ______
x ☐ Respondent not married – *SKIP to 72a* **71a.** Does your husband's health or physical condition limit his activities or the kind of work he can do?	**71a.** 1 ☐ Yes – *ASK b – d* 2 ☐ No – *SKIP to 72a*
b. What physical or health problem does he have?	
c. In what way are his activities limited?	
d. How long has he been limited this way?	**d.** Months ______ Years ______

IX. FUTURE PLANS

72a. Now I would like to talk to you about your future plans. What would you like to to be doing when you are 35 years old?	**72a.** 1 ☐ Working – What kind of work? ______ (*SKIP to 73*) 2 ☐ Same as present (last) job } *SKIP to Check Box after 75* 3 ☐ Don't know } *SKIP to Check Box after 75* 4 ☐ Married, keeping house, raising family – *ASK b* 5 ☐ Other– *Specify* ______ *SKIP to Check Box after 75*
b. Sometimes women decide to work after they have been married for a while. If you were to work, what kind of work would you prefer?	**b.** 1 ☐ Same as present (last) job } *SKIP to Check Box after 75* 2 ☐ Don't know } *SKIP to Check Box after 75* 3 ☐ Don't plan to work 4 ☐ Different from present job – *Specify* ______ *ASK 73* x ☐
73. Why do you think you would like this type of work?	**73.** 1 ☐ I'm interested in it; I enjoy it 2 ☐ It pays well; is secure 3 ☐ Other – *Specify* ______ x ☐
74. What do you think your chances are of actually getting into this type of work?	**74.** Are they – 1 ☐ Excellent } *SKIP to Check Box after 75* 2 ☐ Good } *SKIP to Check Box after 75* 3 ☐ Fair } *ASK 75* 4 ☐ Poor } *ASK 75*
75. Why do you think the chances are not good?	**75.** 1 ☐ Poor grades 2 ☐ Lack of education 3 ☐ Lack of experience 4 ☐ May change her mind (not sure) 5 ☐ Other – *Specify* ______

While answering Section IX, was another person present?

1 ☐ Yes   2 ☐ No – *Go to 76*

Would you say this person influenced the respondent's answers?

1 ☐ Yes   2 ☐ No

X. ATTITUDE TOWARD WOMAN'S ROLE

76. Now I'd like you to think about a family where there is a mother, a father who works full time, and several children under school age. A trusted relative who can care for the children lives nearby. In this family situation, how do you feel about the mother taking a full-time job outside the home? *(Show Flashcard I)*

Statements	Definitely all right	Probably all right	Probably not all right	Definitely not all right	No opinion, undecided
a. If it is absolutely necessary to make ends meet	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
b. If she prefers to work and her husband agrees	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐
c. If she prefers to work, but her husband doesn't particularly like it	1 ☐	2 ☐	3 ☐	4 ☐	5 ☐

77. What do you think is the ideal age for girls to get married?

77. Age ____________

☐ Respondent has no children – *SKIP to Check Item N*

78. How much education would you like your child(ren) to get?

78. ______________________________

____

CHECK ITEM N

Respondent is married and:

1 ☐ In Labor Force Group A or B – *ASK 79*

2 ☐ In Labor Force Group C – *SKIP to 80*

3 ☐ Respondent is not married – *SKIP to Check Item O*

79. How does your husband feel about your working – does he like it very much, like it somewhat, not care either way, dislike it somewhat, or dislike it very much?

79.
1 ☐ Like it very much
2 ☐ Like it somewhat
3 ☐ Not care either way
4 ☐ Dislike it somewhat
5 ☐ Dislike it very much

SKIP to Check Item O

80. How do you think your husband would feel about your working now – would he like it very much, like it somewhat, not care either way, dislike it somewhat, or dislike it very much?

80.
1 ☐ Like it very much
2 ☐ Like it somewhat
3 ☐ Not care either way
4 ☐ Dislike it somewhat
5 ☐ Dislike it very much

Notes

XI. ASSETS AND INCOME

CHECK ITEM O	1 ☐ Respondent or husband is NOT head of household – *SKIP to 83a* 2 ☐ Respondent or husband is head of household – *ASK 81a*
81a. In 1967, did you (or your husband) receive financial assistance from any of your relatives?	**81a.** 1 ☐ Yes – *ASK b – c* 2 ☐ No – *SKIP to 82a*
b. From whom? ______	
c. How much did you receive?	**c.** $ ______
82a. Is this house (apartment) owned or being bought by you (or your husband)?	**82a.** 1 ☐ Yes 2 ☐ No – *SKIP to 83a*
b. About how much do you think this property would sell for on today's market?	**b.** $ ______
c. About how much do you (or your husband) owe on this property for mortgages, back taxes, home improvement loans, etc.?	**c.** $ ______ 0 ☐ None
83a. Do you (or your husband) have any money in savings or checking accounts, savings and loan companies, or credit unions?	**83a.** 1 ☐ Yes – How much altogether? $ ______ 2 ☐ No
b. Do you (or your husband) have any–	
1. U.S. Savings Bonds?	**b.** 1 ☐ Yes – What is their face value? $ ______ 2 ☐ No – *GO to (2)*
2. Stocks, bonds, or mutual funds?	1 ☐ Yes – About how much is their market value? $ ______ 2 ☐ No
84a. Do you (or your husband) rent, own, or have an investment in a farm, business, or any other real estate?	**84a.** 1 ☐ Yes – *ASK b – d* 2 ☐ No – *SKIP to 85a*
b. Which one?	**b.** 1 ☐ Farm 2 ☐ Business 3 ☐ Real estate
c. About how much do you think this (business, farm, or other real estate) would sell for on today's market?	**c.** $ ______
d. What is the total amount of debt and other liabilities on this (business, farm, or other real estate)?	**d.** $ ______ 0 ☐ None
85a. Do you (or your husband) own an automobile?	**85a.** 1 ☐ Yes – *ASK b – c* 2 ☐ No – *SKIP to 86*
b. What is the make and model year? *If more than one, ask about newest.*	**b.** Model year ______ Make ______
c. When was it purchased?	**c.** Year ______
d. Do you owe any money on this automobile?	**d.** 1 ☐ Yes – How much altogether? $ ______ 2 ☐ No
86. Do you (or your husband) owe any (other) money to stores, banks, doctors, or anyone else, excluding 30-day charge accounts?	**86.** 1 ☐ Yes – How much altogether? $ ______ 2 ☐ No

XI. ASSETS AND INCOME – Continued

	Respondent	Husband x ☐ Not married
Now I would like to ask a few questions about your income in 1967. **87a.** How much did you (or your husband) receive from wages, salary, commissions, or tips from all jobs, before deductions for taxes or anything else?	**87a.** $ ____________ 0 ☐ None	$ ____________ 0 ☐ None
b. Did you (or your husband) receive any income from working on your own or in your own business or farm? $ ____________ less ____________ = (Gross income) (Expenses)	b. 1 ☐ Yes – How much? $ ____________ 2 ☐ No	1 ☐ Yes – How much? $ ____________ 2 ☐ No
c. Did you (or your husband) receive any unemployment compensation?	c. 1 ☐ Yes (1) How many weeks? ____________ (2) How much? $ ____________ 2 ☐ No	1 ☐ Yes (1) How many weeks? ____________ (2) How much? $ ____________ 2 ☐ No
d. Did you (or your husband) receive any other income, such as rental income, interest or dividends, income as a result of disability, or illness, etc.?	d. 1 ☐ Yes – How much? $ ____________ 2 ☐ No	1 ☐ Yes – How much? $ ____________ 2 ☐ No

CHECK ITEM P

1 ☐ Respondent (and husband) lives alone – *SKIP to 88b*

2 ☐ All others – *ASK 88a (If two or more RELATED respondents in household ASK 88a – b only once, and transcribe answers from the first to the other questionnaires).*

88a. In 1967, what was the total income of ALL family members living here? *(Show Flashcard 2)*	**88a.** 1 ☐ Under $1,000 2 ☐ $ 1,000 – $ 1,999 3 ☐ 2,000 – 2,999 4 ☐ 3,000 – 3,999 5 ☐ 4,000 – 4,999 6 ☐ 5,000 – 5,999 7 ☐ 6,000 – 7,499 8 ☐ 7,500 – 9,999 9 ☐ 10,000 – 14,999 10 ☐ 15,000 – 24,999 11 ☐ 25,000 and over ☐ Don't know
b. Did anyone in this family receive any welfare or public assistance in 1967?	b. 1 ☐ Yes – How much altogether? $ ____________ 2 ☐ No

CHECK ITEM Q.

1 ☐ Respondent lives with parents – *SKIP to Check Box after 89b*

2 ☐ Respondent does not live with parents – *ASK 89a*

89a. How many persons, not counting yourself or (your husband) are dependent upon you for at least one-half of their support?	**89a.** Number ____________ 0 ☐ None – *SKIP to Check Box after 89b*
b. Do any of these dependents live somewhere other than here at home with you?	b. 1 ☐ Yes – Who are they? ____________ ____________ 2 ☐ No

While answering Section XI was another person present?

1 ☐ Yes 2 ☐ No – *GO to 90*

Would you say this person influenced the respondent's answers?

1 ☐ Yes 2 ☐ No

Notes

XII. FAMILY BACKGROUND

Now I have some questions on your family background. 90. Where were you born?	90. 1 ☐ U.S. City ______ County ______ State ______ 2 ☐ Outside U.S. *Specify country* ______
91. For how long have you been living in this area (city or county of CURRENT residence)?	91. 1 ☐ Less than 1 year 2 ☐ 1 year or more – *Specify* ______ 3 ☐ All my life – *SKIP* to 94
92. Where did you live before moving to (name of city or county of CURRENT residence)?	92. 1 ☐ U.S. City ______ County ______ State ______ 2 ☐ Outside U.S. *Specify country* ______
93. Where did you live when you were 18?	93. 0 ☐ Respondent is 18 or less 1 ☐ U.S. City ______ County ______ State ______ 2 ☐ Outside U.S. *Specify country* ______
94. 0 ☐ Respondent not married – *SKIP* to 95 How old were you at the time of your first marriage?	94. Age ______
Now I'd like to ask about your parents. 95. Are your mother and father living?	95. 1 ☐ BOTH parents alive 2 ☐ MOTHER alive, Father dead 3 ☐ FATHER alive, Mother dead 4 ☐ NEITHER parent alive
0 ☐ Respondent is not married – *SKIP* to 97 96. What about your husband's parent's? Are his mother and father living?	96. 1 ☐ BOTH parents alive 2 ☐ MOTHER alive, Father dead 3 ☐ FATHER alive, Mother dead 4 ☐ NEITHER parent alive
97. Where were your parents born – in the U.S. or some other country?	97a. FATHER 1 ☐ U.S. 2 ☐ Other – *Specify* ______ b. MOTHER 1 ☐ U.S. 2 ☐ Other – *Specify* ______ *If either parent born outside U.S. – SKIP to 99*

XII. FAMILY BACKGROUND – Continued

98. In what country were your grandparents born? a. Father's father b. Father's mother c. Mother's father d. Mother's mother	**98.** a. 1 ☐ U.S. 2 ☐ Other – *Specify* ____ b. 1 ☐ U.S. 2 ☐ Other – *Specify* ____ c. 1 ☐ U.S. 2 ☐ Other – *Specify* ____ d. 1 ☐ U.S. 2 ☐ Other – *Specify* ____
99. Which of the categories on this card describes where you were living when you were 14 years old? *(Show Flashcard 3)*	**99.** 1 ☐ On a farm or ranch 2 ☐ In the country, not on farm or ranch 3 ☐ In a town or small city (under 25,000) 4 ☐ In the suburb of a large city 5 ☐ In a city of 25,000 – 100,000 6 ☐ In a large city (100,000 or more)
100. With whom were you living when you were 14 years old? *If 6, 7, or 8 marked – Specify* ____ ____ ____	**100.** 1 ☐ Father and mother 2 ☐ Father and step-mother 3 ☐ Mother and step-father 4 ☐ Father 5 ☐ Mother 6 ☐ Some other adult MALE relative 7 ☐ Some other adult FEMALE relative 8 ☐ Some other arrangement (6–8) *Specify* 9 ☐ On my own – *SKIP to 102*
101a. What kind of work was your father (or head of the household) doing when you were 14 years old?	**101a.** Occupation ____ ☐ Did not work
b. Did your mother work for pay when you were 14 years old?	b. 1 ☐ Yes – *ASK c* 2 ☐ No – *SKIP to 102*
c. What kind of work did she do?	c. Occupation ____
102a. Did you or your parents (or person mentioned in 100) regularly get any magazines when you were about 14 years old?	**102a.** 1 ☐ Yes 2 ☐ No
b. Did you or your parents (or person mentioned in 100) regularly get a newspaper when you were about 14 years old?	b. 1 ☐ Yes 2 ☐ No
c. Did you or your parents have a library card when you were about 14 years old?	c. 1 ☐ Yes 2 ☐ No
CHECK ITEM R	1 ☐ Father lives in household 2 ☐ Father deceased 3 ☐ Did not live with father when 14 years old (Q. 100) (1–3) *SKIP to Check Item S* ☐ Other – *ASK 103a*
103a. During 1967 about how many weeks did your father work either full-time or part-time (not counting work around the house)?	**103a.** Weeks ____ 0 ☐ Did not work 1 ☐ Don't know (0–1) *SKIP to 104a*
b. Did your father usually work full-time or part-time?	b. 1 ☐ Full-time 2 ☐ Part-time
c. What kind of work was he doing? *If more than one, record the one worked at longest.*	c.

XII. FAMILY BACKGROUND – *Continued*

104a. What was the highest grade (or year) of regular school your father ever attended?	**104a.** 1. Elementary 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 2. High school 1 ☐ 2 ☐ 3 ☐ 4 ☐ 3. College 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6+ ☐
b. Did he finish this grade (or year)?	**b.** 1 ☐ Yes 2 ☐ No

CHECK ITEM S

1 ☐ Mother lives in household
2 ☐ Mother deceased
3 ☐ Did not live with mother when 14 years old (Q. 100)
} *SKIP to 107a*
☐ Other – *ASK 105a*

105a. During 1967 about how many weeks did your mother work either full-time or part-time (not counting work around the house)?	**105a.** Weeks ________ 0 ☐ Did not work 1 ☐ Don't know } *SKIP to 106a*
b. Did your mother usually work full-time or part-time?	**b.** 1 ☐ Full-time 2 ☐ Part-time
c. What kind of work was she doing? *If more than one, record the one worked at longest.*	**c.**
106a. What was the highest grade (or year) of regular school your mother ever attended?	**106a.** 1. Elementary 1 ☐ 2 ☐ 3 ☐ 4 ☐ 4 ☐ 6 ☐ 7 ☐ 8 ☐ 2. High school 1 ☐ 2 ☐ 3 ☐ 4 ☐ 3. College 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6+ ☐
b. Did she finish this grade (or year)?	**b.** 1 ☐ Yes 2 ☐ No
107a. Do you have any brothers or sisters who live somewhere else?	**107a.** 1 ☐ Yes 2 ☐ No – *SKIP to 109*
b. How many?	**b.**
c. How old is the oldest (living) one?	**c.** Age ________
108a. What was the highest grade (or year) of regular school he (she) ever attended?	**108a.** 1 Elementary 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8 ☐ 2 High school 1 ☐ 2 ☐ 3 ☐ 4 ☐ 3 College 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6+ ☐
b. Did he (she) finish this grade (or year)?	**b.** 1 ☐ Yes 2 ☐ No
109. What is your Social Security number?	☐☐☐☐☐☐☐☐☐ 0 ☐ Does not have one

Notes

Now I have a few questions about the education and work experience of the other family members living here.

				Persons 6 – 24 years old			Persons 25 years old and over		Persons 14 years old and over		
										If person worked at all in 1967	
Line number 110	Name *List below all persons living here who are related to respondent.* *Enter the line number from the Household Record Card* 111	Age *(As of January 1, 1968)* 112	Relationship to respondent *(Example: husband, son, daughter-in-law, brother, etc.)* 113	Is . . . attending or enrolled in school? *Circle Y – Yes N – No* 114	*If "Yes"* – what grade (year)? *If "No"* – What is the highest grade (year) . . . ever attended? 115	Did . . . finish this grade (year)? 116	What is the highest grade (year) of regular school . . . has ever attended? 117	Did . . . finish this grade (year)? 118	During 1967 how many weeks did . . . work either full or part time (not counting work around the house)? 119	In the weeks that . . . worked, how many hours did . . . usually work per week? 120	What king of work was . . . doing in 1967? *If more than one, record the longest* 121
			Respondent								
				Y N		Y N		Y N			
				Y N		Y N		Y N			
				Y N		Y N		Y N			
				Y N		Y N		Y N			
				Y N		Y N		Y N			
				Y N		Y N		Y N			
				Y N		Y N		Y N			
				Y N		Y N		Y N			
				Y N		Y N		Y N			

122. *ASK at the completion of the interview. If more than one respondent in the household, ask for each.*
We would like to contact you again next year at this time to bring this information up to date. Would you please give me the name, address, and telephone number of two relatives or friends who will always know where you can be reached even if you move away? – *Enter information below.*

Name	Relationship to respondent	Address	Telephone number
1.			
2.			

CHECK ITEM T

1 ☐ Respondent has completed less than 1 year of high school (Q. 2 or 4)

Respondent has completed 1 or more years of high school and –

2 ☐ Signed release

3 ☐ Did not sign release

Notes

O.M.B. No. 41-R2423; Approval Expires December 31, 1973

NOTICE – Your report to the Census Bureau is confidential by law (Title 13, U.S. Code). It may be seen only by sworn Census employees and may be used only for statistical purposes.

FORM LGT-451
(9-20-72)

U.S. DEPARTMENT OF COMMERCE
SOCIAL AND ECONOMIC STATISTICS ADMINISTRATION
BUREAU OF THE CENSUS

NATIONAL LONGITUDINAL SURVEYS
SURVEY OF WORK EXPERIENCE OF YOUNG WOMEN

1973

(001) 1 ☐ Respondent a noninterview in 1972 – *Go to page 30*

METHODS OF LOCATING RESPONDENT WHO HAS MOVED

	Successful	Unsuccessful	
(002)	1 ☐	2 ☐	New occupants
(003)	1 ☐	2 ☐	Neighbors
(004)	1 ☐	2 ☐	Apartment house manager
(005)	1 ☐	2 ☐	Post office
(006)	1 ☐	2 ☐	School
(007)	1 ☐	2 ☐	Persons listed on information sheet
(008)	1 ☐	2 ☐	Other – Specify

RECORD OF CALLS

Date	Time	Comments
	a.m. p.m.	
	a.m. p.m.	
	a.m. p.m.	
	a.m. p.m.	

RECORD OF INTERVIEW

Date completed Month/Day/Year	Interview time Began	Interview time Ended	Interviewed by
(009)	a.m. p.m.	a.m. p.m.	
Length of interview (minutes) (010)			

NONINTERVIEW REASON

(011) ☐ Unable to contact respondent – *Specify*

6 ☐ Temporarily absent – *Give return date*

8 ☐ Institutionalized – *Specify type*

9 ☐ Refused

0 ☐ Deceased

A ☐ Other – *Specify*

TRANSCRIPTION FROM HOUSEHOLD RECORD CARD

Item 13 – Marital status of respondent

(012)
1 ☐ Married, spouse present
2 ☐ Married, spouse absent
3 ☐ Widowed
4 ☐ Divorced
5 ☐ Separated
6 ☐ Never married

If respondent has moved, enter new address

(013) (014) 1. Number and street

(015)

2. City	3. County	4. State	5. ZIP code

I. EDUCATIONAL STATUS

1. **Are you attending or enrolled in regular school?**	1.	(016) 1 ☐ Yes – ASK 2a 2 ☐ No **When were you last enrolled?** (017) ________ Month ______ Year – *SKIP to Check Item B*
2a. **What grade are you attending?**	2a.	(018) 1 Elementary 1 2 3 4 5 6 7 8 2 High school 1 2 3 4 3 College 1 2 3 4 5 6+
b. **Are you enrolled as a full-time or part-time student?**	b.	(019) 1 ☐ Full-time 2 ☐ Part-time
CHECK ITEM A		*Refer to item 111R on Information Sheet.* ☐ Respondent not in school in 1972 – *ASK 3a* ☐ Respondent in school in 1972 – *SKIP to Check Item C*
CHECK ITEM B		*Refer to item 111R on Information Sheet.* ☐ Respondent in school in 1972 – *SKIP to Check Item F* ☐ All others – *SKIP to 22a on page 5*
3a. **At this time last year, you were not enrolled in school. How long had you been out of school before returning?**	3a.	(020) ______ Years
b. **Why did you return?**	b.	(021) ☐
c. **In what curriculum are you enrolled?**	c.	(022) ☐☐ ____________________ *SKIP to 5*
CHECK ITEM C		*Refer to items 2a and 111R on Information Sheet.* ☐ Respondent in high school in 1972, college now – *SKIP to 5* ☐ Other – *ASK 4*
4. **Are you attending the same school as you were at this time last year?**	4.	(023) 1 ☐ Yes – *SKIP to 10* 2 ☐ No – *ASK 5*
5. **What is the name of the school you now attend?**	5.	
6. **Where is this school located?**	6.	(024) ☐☐ ____________________ City ____________________ County ____________________ State
7. **Is this school public or private?**	7.	(025) 1 ☐ Public 2 ☐ Private
8. **When did you enter this school?**	8.	(026) ________ Month ______ Year
CHECK ITEM D		*Refer to item 2a or item 111R on Information Sheet.* ☐ Respondent in college l now – *SKIP to 14a* ☐ Respondent in high school l now } *SKIP to 22a on page 5* ☐ Respondent not in school in 1972 } *SKIP to 22a on page 5* ☐ Other – *ASK 9*
9. **Why did you change schools?**	9.	(027) ☐
10. **Would you say you now like school more, about the same, or less than you did last year?**	10.	(028) 1 ☐ More 2 ☐ Less 3 ☐ About the same

I. EDUCATIONAL STATUS – Continued

11. Are you enrolled in the same curriculum now as you were last year?	11.	(029)	☐ Yes 1 ☐ College – *SKIP to 14a* 2 ☐ High school } *SKIP to 22a on page 5* 3 ☐ Elementary } 4 ☐ No – *ASK 12*
12. In what curriculum are you enrolled now?	12.	(030)	☐☐
13. How did you happen to change your curriculum?	13.	(031)	☐
☐ Respondent not now in college – *SKIP to Check Item E* **14a. How much is the full-time tuition this year at the college you attend?**	14a.	(032)	$ ________ . 00
b. Do you have a scholarship, fellowship, assistantship, or other type of financial aid this year?	b.	(033)	1 ☐ Yes – *ASK c* 2 ☐ No – *SKIP to Check Item E*
c. What kind?	c.	(034)	1 ☐ Scholarship 2 ☐ Fellowship 3 ☐ Assistantship 4 ☐ Loan 5 ☐ Other – *Specify* ________
d. How much is it per year?	d.	(035)	$ ________ . 00

CHECK ITEM E

Refer to item 11IR on Information Sheet:

☐ Respondent in college 3–6 in 1972 – *ASK 15a*

☐ Other – *SKIP to 22a on page 5*

15a. Have you received a degree since last year at this time?	15a.	(036)	1 ☐ Yes – *ASK b* 2 ☐ No – *SKIP to 22a on page 5*
b. What degree was it?	b.	(037)	1 ☐ Bachelor's (B.A., B.S., A.B.) 2 ☐ Master's (M.S., M.A., M.B.A.) 3 ☐ Doctor's (Ph.D.) 4 ☐ Other – *Specify* ________
c. In what field did you receive your degree?	c.	(038)	☐☐
d. Why did you decide to continue your education after receiving this degree?	d.	(039)	☐ ________ *SKIP to 22a on page 5*

CHECK ITEM F

Refer to item 11IR on Information Sheet.

☐ Respondent in high school 1–3 last year – *ASK 16a*

☐ Respondent in high school 4 last year – *SKIP to 17a*

☐ Respondent in college 1–3 last year – *SKIP to 19a*

☐ Respondent in college 4+ last year – *SKIP to 20a*

☐ Respondent in elementary school last year – *ASK 16a*

16a. At this time last year, you were attending your ______ year of high school. Did you complete that year?	16a.	(040)	1 ☐ Yes 2 ☐ No
b. Why did you drop out of high school?	b.	(041)	☐
c. Do you expect to return?	c.	(042)	1 ☐ Yes – *ASK d* 2 ☐ No – *SKIP to 24a on page 6*
d. When do you expect to return?	d.	(043)	1 ☐ Within a year 2 ☐ Within two years 3 ☐ Don't know 4 ☐ Other } *SKIP to 22a on page 5*

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I. EDUCATIONAL STATUS – Continued

17a. Did you graduate from high school?	17a.	(044) 1 ☐ Yes – *SKIP to Check Item G* 2 ☐ No – ASK b
b. Why not?	b.	(045) ☐

CHECK ITEM G	*Refer to item 113R on Information Sheet.* ☐ Respondent had planned to enter college when last interviewed – ASK 18a ☐ Respondent had not planned to enter college when last interviewed – *SKIP to 22a* ☐ Respondent not asked about educational goal – *SKIP to 22a*

18a. When we last interviewed you, you said you planned to go to college. Have your plans changed?	18a.	(046) 1 ☐ Yes – ASK b 2 ☐ No – *SKIP to c*
b. What caused your plans to change?	b.	(047) 1 ☐ Poor grades, lacked ability, wasn't accepted because of low grades, etc 2 ☐ Economic reasons (couldn't afford, had to work instead, unable to obtain financial assistance) 3 ☐ Disliked school, lost interest, had enough school 4 ☐ Marriage, pregnancy or children 5 ☐ Personal health reasons 6 ☐ Other – *Specify* ______________ *SKIP to d*
c. Why are you presently not enrolled in college?	c.	(048) 1 ☐ Economic reasons (couldn't afford, have to work, unable to obtain financial assistance, etc.) 2 ☐ Was rejected or turned down 3 ☐ Waiting to be accepted by a school 4 ☐ Marriage, pregnancy or children 5 ☐ Personal health reasons 6 ☐ Other – *Specify* ______________
d. When do you plan to enroll in college?	d.	(049) __________ Month ________ Year – *SKIP to 22a* x ☐ Don't plan to enroll – *SKIP to 24a on page 6*
19a. Last year at this time you were in college. Why did you decide to drop out?	19a.	(050) ☐ ______________ ______________ x ☐ Received degree – *SKIP to 21a*
b. Do you expect to return?	b.	(051) 1 ☐ Yes – ASK c 2 ☐ No – *SKIP to 24a on page 6*
c. When do you think you will return?	c.	(052) 1 ☐ Within a year 2 ☐ Within two years 3 ☐ Don't know 4 ☐ Other *SKIP to 22a*
20a. Last year at this time you were in college. Did you receive a degree?	20a.	(053) 1 ☐ Yes – *SKIP to 21a* 2 ☐ No – ASK b
b. Why did you decide to drop out?	b.	(054) ☐
c. Do you expect to return?	c.	(055) 1 ☐ Yes – ASK d 2 ☐ No – *SKIP to 24a*
d. When?	d.	(056) 1 ☐ Within a year 2 ☐ Within two years 3 ☐ Don't know 4 ☐ Other *SKIP to 22a*

I. EDUCATIONAL STATUS – Continued

21a. What degree did you receive?

21a. (057)
1 ☐ Associate (2 year course)
2 ☐ Bachelor's (B.A., B.S., A.B.)
3 ☐ Master's (M.S., M.A., M.B.A.)
4 ☐ Doctor's (Ph.D.)
5 ☐ Other – *Specify* ____________

b. In what field of study did you receive your degree?

b. (058) ☐☐

22a. How much education would you like to get?

If "Other," Specify ⌐

____

____

22a. (059)
High school 1 ☐ 1 yr. 2 ☐ 2 yrs. 3 ☐ 3 yrs. 4 ☐ 4 yrs.
College
5 ☐ 2 yrs. (complete junior college)
6 ☐ 4 yrs. (graduate from 4-year college)
7 ☐ 6 yrs. (master's degree or equivalent)
8 ☐ 7 + yrs. (Ph.D. or professional degree)
Other 9 ☐ Don't know, other responses

b. As things stand now how much education do you think you will actually get?

If "Other," Specify ⌐

____

____

b. (060)
High school 1 ☐ 1 yr. 2 ☐ 2 yrs. 3 ☐ 3 yrs. 4 ☐ 4 yrs.
College
5 ☐ 2 yrs. (complete junior college)
6 ☐ 4 yrs. (graduate from 4-year college)
7 ☐ 6 yrs. (master's degree or equivalent)
8 ☐ 7 + yrs. (Ph.D. or professional degree)
Other 9 ☐ Don't know, other responses

CHECK ITEM H

Refer to item 22a and item 113R on Information Sheet.
☐ Educational goal different from when last interviewed – ASK 23
☐ Educational goal same as when last interviewed
☐ Respondent not asked about educational goal
} SKIP to 24a

23. When we last interviewed you, you said you would like to get *(amount of education indicated in 113R)* **Why have you changed your plans?**

23. (061) ☐

Notes

(062)
(063)
(064)
(065)
(066)

FORM LGT-451 (9-20-72)

I. EDUCATIONAL STATUS – *Continued*

☐ Respondent now attends school – *SKIP to 24L* **24a. Since this time last year have you taken any training courses or educational programs of any kind, either on the job or elsewhere?**	24a. (067) 1 ☐ Yes – *ASK b* 2 ☐ No – *SKIP to 24L*
b. What kind of training or education program did you take? *(Specify below, then mark one box)* ____________________ ____________________	b. (068) 1 ☐ Professional, technical 2 ☐ Managerial 3 ☐ Clerical 4 ☐ Skilled manual 5 ☐ Other
c. Where did you take this training course? *(Specify below, then mark one box)* ____________________ ____________________	c. (069) 1 ☐ Business college, technical institute 2 ☐ Company training school 3 ☐ Correspondence course 4 ☐ High school 5 ☐ Area vocational school 6 ☐ Community or junior college 7 ☐ Other
d. How long did you attend this course or program?	d. (070) ________ Months – *SKIP to f* x ☐ Still attending – *ASK e*
e. How many months have you been attending?	e. (071) ________ Months
f. How many hours per week did you spend on this training?	f. (072) 1 ☐ 1–4 2 ☐ 5–9 3 ☐ 10–14 4 ☐ 15–19 5 ☐ 20 or more
g. Did you complete this program?	g. (073) 1 ☐ Yes – **When?** ________ Month ______ Year – *SKIP to i* 2 ☐ No, dropped out – **When?** ________ Month ______ Year – *ASK h* x ☐ No, still enrolled – *SKIP to i*
h. Why didn't you complete this program?	h. (074) 1 ☐ Found a job 2 ☐ Interfered with school 3 ☐ Too much time involved 4 ☐ Lost interest 5 ☐ Too difficult 6 ☐ Other – *Specify* ____________
i. Why did you decide to get this training?	i. (075) 1 ☐ To obtain work 2 ☐ To improve current job situation 3 ☐ To get better job than present one 4 ☐ Wanted to continue education 5 ☐ Need it; worthwhile 6 ☐ Other – *Specify* ____________
j. Do you use this training on your present job?	j. (076) 1 ☐ Yes 2 ☐ No 3 ☐ Not employed
k. Did you receive a certificate for this training?	k. (077) 1 ☐ Yes 2 ☐ No
l. Since February 1972, have you obtained a certificate for practicing a profession or trade?	l. (078) 1 ☐ Yes – *ASK m* 2 ☐ No – *SKIP to 25a*
m. What type of certificate is (was) it?	m. (079) ☐ ____________________
n. Is this certificate currently valid?	n. (080) 1 ☐ Yes 2 ☐ No

ORM LGT-461 (9-20-72)

1. EDUCATIONAL STATUS – Continued

25a. Do you expect to take any additional courses or educational programs of any kind in the near future?	25a. (081) 1 ☐ Yes – *ASK b* 2 ☐ Maybe – *SKIP to e* 3 ☐ No – *SKIP to f*
b. What kind of training to you expect to take? *(Specify below and mark one box)* ____________________________________ ____________________________________	b. (082) 1 ☐ Professional, technical 2 ☐ Managerial 3 ☐ Clerical 4 ☐ Skilled manual 5 ☐ Other
c. Where do you expect to take this training?	c. (083) 1 ☐ Business college, technical institute 2 ☐ Company training school 3 ☐ Correspondence course 4 ☐ High school 5 ☐ Area vocational school 6 ☐ Community or junior college 7 ☐ Other – *Specify* ____________________
d. When do you expect to start this training?	d. (084) __________ Month ______ Year – *SKIP to 26*
e. On what would it depend?	e. (085) ☐ ______________________________ – *SKIP to 26*
f. Why do you think you will not take additional training?	f. (086) 1 ☐ Not interested in training 2 ☐ Family responsibilities 3 ☐ Training not available 4 ☐ Too expensive 5 ☐ Would interfere with work 6 ☐ Don't know 7 ☐ Other – *Specify* ____________________

Notes

II. CURRENT LABOR FORCE STATUS AND WORK HISTORY

26. **What were you doing most of LAST WEEK – working, going to school, or something else?**

(087)
1 ☐ WK – Working – *SKIP to 27b*
2 ☐ J – With a job but not at work
3 ☐ LK – Looking for work
4 ☐ S – Going to school
5 ☐ KH – Keeping house
6 ☐ U – Unable to work – *SKIP to 30*
7 ☐ OT – Other – *Specify*

____

27c. **Do you USUALLY work 35 hours or more a week at this job?**

(088)
1 ☐ Yes – **What is the reason you worked less than 35 hours LAST WEEK?**
2 ☐ No – **What is the reason you USUALLY work less than 35 hours a week?**

(Mark the appropriate reason)

(089)
1 ☐ Slack work
2 ☐ Material shortage
3 ☐ Plant or machine repair
4 ☐ New job started during week
5 ☐ Job terminated during week
6 ☐ Could find only part-time work
7 ☐ Labor dispute
8 ☐ Did not want full-time work
9 ☐ Full-time work week under 35 hours
10 ☐ Attends school
11 ☐ Holiday (legal or religious)
12 ☐ Bad weather
13 ☐ Own illness
14 ☐ On vacation
15 ☐ Too busy with housework, personal business, etc.
16 ☐ Other – *Specify*

____

(SKIP to 31a and enter job worked at last week)

27a. **Did you do any work at all LAST WEEK, not counting work around the house?**

(090) 1 ☐ Yes 2 ☐ No – *SKIP to 28a*

b. **How many hours did you work LAST WEEK at all jobs?**

(091) ______ Hours

CHECK ITEM I

Respondent worked –

(092)
1 ☐ 49 hours or more – *SKIP to 31a and enter job worked at last week*
2 ☐ 1–34 hours – *ASK c*
3 ☐ 35–48 hours – *ASK d*

27d. **Did you lose any time or take any time off LAST WEEK for any reason such as illness, holiday, or slack work?**

☐ Yes – **How many hours did you take off?**

(093) ______ Hours

0 ☐ No – *GO to 27e*

NOTE: Correct item 27b if lost time not already deducted: if item 27b is reduced below 35 hours, ask item c, otherwise SKIP to 31a.

e. **Did you work any overtime or at more than one job LAST WEEK?**

☐ Yes – **How many extra hours did you work?**

(094) ______ Hours

0 ☐ No

NOTE: Correct item 27b if extra hours not already included and SKIP to 31a.

(If "J" in 26, SKIP to b)

28a. **Did you have a job (or business) from which you were temporarily absent or on layoff LAST WEEK?**

(095)
1 ☐ Yes
2 ☐ No – *ASK 29a*

b. **Why were you absent from work LAST WEEK?**

(096)
1 ☐ Own illness
2 ☐ On vacation
3 ☐ Bad weather
4 ☐ Labor dispute
5 ☐ New job to begin within 30 days } *ASK 29c and 29d(2)*
6 ☐ Temporary layoff (less than 30 days) } *ASK 29d(3)*
7 ☐ Indefinite layoff (30 days or more or no definite recall date) } *ASK 29d(3)*
8 ☐ School interfered
9 ☐ Other – *Specify*

____

____

c. **Are you getting wages or salary for any of the time off LAST WEEK?**

(097)
1 ☐ Yes
2 ☐ No
3 ☐ Self-employed

d. **Do you usually work 35 hours or more a week at this job?**

(098)
1 ☐ Yes
2 ☐ No

(GO to 31a and enter job held last week)

Notes

339

II. CURRENT LABOR FORCE STATUS AND WORK HISTORY – Continued

(If "LK" in 26, ASK b)

29a. Have you been looking for work during the past 4 weeks?

(099) 1 ☐ Yes   2 ☐ No – SKIP to 30

b. What have you been doing in the last 4 weeks to find work?

(Mark all methods used; do not read list)

(100) 0 ☐ Nothing – SKIP to 30

Checked with
- 1 ☐ State employment agency
- 2 ☐ Private employment agency
- 3 ☐ Employer directly
- 4 ☐ Friends or relatives

5 ☐ Placed or answered ads

6 ☐ School employment service

7 ☐ Other – Specify – e.g., MDTA, union or professional register, etc.

____

c. Why did you start looking for work? Was it because you lost or quit a job at that time (pause) **or was there some other reason?**

(101)
- 1 ☐ Lost job
- 2 ☐ Quit job
- 3 ☐ Wanted temporary work
- 4 ☐ Children are older
- 5 ☐ Enjoy working
- 6 ☐ Help with family expenses
- 7 ☐ Other – Specify

____

d. (1) How many weeks have you been looking for work?

(2) How many weeks ago did you start looking for work?

(3) How many weeks ago were you laid off?

(102) _______ Weeks

e. Have you been looking for full-time or part-time work?

(103) 1 ☐ Full-time

2 ☐ Part-time

f. Is there any reason why you could not take a job LAST WEEK?

(104)

Yes →
- 1 ☐ Needed at home
- 2 ☐ Temporary illness
- 3 ☐ Going to school
- 4 ☐ Child care not available
- 5 ☐ Other – Specify

____

6 ☐ No

g. When did you last work at a regular job or business lasting two consecutive weeks or more, either full-time or part-time?

☐ Date of last interview or later (item 110R on Information Sheet) – Specify

(105)

Month	Day	Year

– SKIP to 41a on page 13

2 ☐ All others – SKIP to 42a on page 13

30. When did you last work at a regular job or business, lasting two consecutive weeks or more, either full-time or part-time?

☐ Date of last interview or later (item 110R on Information Sheet) – Specify

(106)

Month	Day	Year

– SKIP to 41a on page 13

2 ☐ "Unable" now and "Unable" in item 114R on the Information Sheet – SKIP to 82a on page 24

3 ☐ All others – SKIP to 42a on page 13

31a. (107) ☐ **DESCRIPTION OF JOB OR BUSINESS**

(1) For whom did you work? (Name of company, business, organization or other employer)

____

(2) Is this the full and complete name of the company?

☐ Yes

☐ No – **What is the full and complete name?**

____

(3) Do you ever refer to the company by any other name?

☐ Yes – **What is that name?**

____

☐ No

(4) To the best of your knowledge, has the name of the company changed in the past year?

☐ Yes – **What was the name?**

____

☐ No

b. (108) ☐☐ **In what city and State is . . . located?**

____________ City ____________ State

c. (109) ☐☐☐ **What kind of business or industry is this?** (For example: TV and radio manufacturer, retail shoe store, State Labor Department, farm)

d. Were you –

(110)
- 10 ☐ P – **An employee of a PRIVATE company, business, or individual for wages, salary, or commissions?**
- 20 ☐ G – **A GOVERNMENT employee (Federal, State, county, or local)?**
- 30 ☐ O – **Self-employed in your OWN business, professional practice, or farm?**
  - (If not a farm)
  - **Is this business incorporated?**
  - 31 ☐ Yes   32 ☐ No
- 40 ☐ WP – **Working WITHOUT PAY in family business or farm?**

e. (111) ☐☐☐ **What kind of work were you doing?** (For example: registered nurse, high school English teacher, waitress)

f. What were your most important activities or duties? (For example: selling clothing, typing, keeping account books, filing)

g. What was your job title?

____

h. When did you start working for (ENTRY IN 31a)**?**

(112)

Month	Day	Year

i. How did you find out about that job?

(113)
- 1 ☐ State employment agency
- 2 ☐ Private employment agency
- 3 ☐ Employer directly
- 4 ☐ Friends, relatives
- 5 ☐ Placed or answered ads
- 6 ☐ School employment service
- 7 ☐ Other – Specify (e.g., MDTA, Union, etc.)

____

II. CURRENT LABOR FORCE STATUS AND WORK HISTORY – *Continued*

CHECK ITEM J	☐ "P" or "G" in item 31d – *ASK 32a* ☐ "O" or "WP" in item 31d – *SKIP to 33e*
32a. Altogether, how much do you usually earn at this job before deductions?	32a. (114) $ ______ . ______ per: *(Dollars)* *(Cents)* (115) 1 ☐ Hour OR (116) $ ______ . 00 per: *(Dollars only)* (117) 2 ☐ Day 3 ☐ Week 4 ☐ Biweekly 5 ☐ Month 6 ☐ Year 7 ☐ Other – *Specify* ______
b. How many hours per week do you usually work at this job?	b. (118) ______ Hours
c. Do you receive extra pay when you work over a certain number of hours?	c. (119) 1 ☐ Yes – *ASK d* 2 ☐ No 3 ☐ No, but receive compensating time off 4 ☐ Never work overtime (2–4) } *SKIP to f*
d. After how many hours do you receive extra pay?	d. (120) ______ Hours per day (121) ______ Hours per week
e. For all hours worked over *(entry in d)* **are you paid straight time, time and one-half, double time or what?**	e. (122) 1 ☐ Compensating time off 2 ☐ Straight time 3 ☐ Time and one-half 4 ☐ Double time 5 ☐ Other – *Specify* ______
f. Are your wages (salary) on this job set by a collective bargaining agreement between your employer and a union or employee association?	f. (123) 1 ☐ Yes – *ASK g* 2 ☐ No – *SKIP to 33a*
g. What is the name of the union or employee association?	g. (124) ☐ ______
h. Are you a member of that union or employee association?	h. (125) 1 ☐ Yes 2 ☐ No
33a. Do you generally work the same days each week and the same hours each day, for example, 8–5 Monday through Friday?	33a. (126) 1 ☐ Yes – *ASK b* 2 ☐ No – *SKIP to c*
b. What hours do you usually work?	b. (127) 1 ☐ Regular day shift 2 ☐ Regular evening shift 3 ☐ Regular night shift 4 ☐ Split shift
c. Some people would like to work more hours a week if they were paid for it. Others would prefer to work fewer hours a week, even if they earned less. Would you prefer more hours and more pay, fewer hours and less pay, or about the same number of hours at the same pay?	c. (128) 1 ☐ More hours and more pay 2 ☐ Fewer hours and less pay (1–2) } *ASK d* 3 ☐ Same hours at the same pay – *SKIP to 34a*
d. About how many hours would you like to work?	d. (129) ______ Hours – *SKIP to 34a*
e. How many hours per week do you usually work at this job?	e. (130) ______ Hours per week

FORM LGT-481 (9-20-72)

II. CURRENT LABOR FORCE STATUS AND WORK HISTORY – Continued

34a. **Is your work done inside your home or outside your home?**	34a.	(131) 1 ☐ Inside – *SKIP to Check Item K* 2 ☐ Outside
b. **How long does it usually take you to get to work?**	b.	(132) ______ Minutes
c. **What means of transportation do you usually use to get to work?** *(Mark as many boxes as apply)*	c.	(133) 1 ☐ Own auto – Ask d 2 ☐ Ride with someone else 3 ☐ Public transportation (bus, elevated, railroad, subway, etc.) 4 ☐ Taxicab } *SKIP to f* 5 ☐ Walk only 6 ☐ Other – Specify } *SKIP to Check Item K* ________________
d. **What is the total round trip cost of any parking fees or tolls you have to pay when you drive your own auto?**	d.	(134) $______ . ______ per: *(Dollars)* *(Cents)* (135) 1 ☐ Day 2 ☐ Week 3 ☐ Month 0 ☐ No cost
e. **How many miles do you go round trip each day?**	e.	(136) ______ Miles
☐ Only box 1 marked in 34c – *SKIP to Check Item K* ☐ Any of boxes 2–4 marked in 34c – *ASK f* f. **What is the total cost of the round trip by** *(means of transportation in c other than own auto)***?**	f.	(137) $______ . ______ per: *(Dollars)* *(Cents)* (138) 1 ☐ Day 2 ☐ Week 3 ☐ Month 0 ☐ No cost

CHECK ITEM K

☐ Entry in 28b – *SKIP to 35d*

Item 28b is blank, and –

☐ Entry in 31d is "P" or "G" – *ASK 35a*

☐ Entry in 31d is "O" or "WP" – *ASK 35c*

35a. **Did you work for more than one employer last week?**	35a.	(139) 1 ☐ Yes – *SKIP to 36a* 2 ☐ No – *ASK b*
b. **In addition to working for wages or salary did you operate your own farm, business, or profession last week?**	b.	(140) 1 ☐ Yes – *SKIP to 36a* 2 ☐ No – *SKIP to d*
c. **In addition to this work, did you do any work for wages or salary last week?**	c.	(141) 1 ☐ Yes – *SKIP to 36a* 2 ☐ No – *ASK d*
d. **Did you have any other job at which you did not work at all last week?**	d.	(142) 1 ☐ Yes – *ASK 36a* 2 ☐ No – *SKIP to 38a*
36a. **For whom did you work in addition to** *(entry in 31a)***?** *(Name of company, business organization or other employer)*	36a.	(143) ☐ ________________
b. **What kind of business or industry is this?** *(For example: TV and radio manufacturer, retail shoe store, State Labor Department, farm)*	b.	(144) ☐☐☐ ________________
c. **Were you –**	c.	(145) 1 ☐ P – **An employee of a PRIVATE company, business or individual for wages, salary, or commission?** 2 ☐ G – **A GOVERNMENT employee (Federal, State, county or local)?** 3 ☐ O – **Self-employed in your OWN business, professional practice or farm?** 4 ☐ WP – **Working WITHOUT PAY in family business or farm?**
d. **What kind of work were you doing?** *(For example: registered nurse, high school English teacher, waitress)*	d.	(146) ☐☐☐ ________________
e. **What were your most important activities or duties?** *(For example: selling clothing, typing, filing)*	e.	________________
f. **What was your job title?**	f.	

CHECK ITEM L

☐ If "P" or "G" in item 36c – *ASK 37a*

☐ If "O" or "WP" in item 36c – *SKIP to 37b*

II. CURRENT LABOR FORCE STATUS AND WORK HISTORY – *Continued*

37a. Altogether how much do you usually earn at this job before deductions?	37a.	(147) $ ________ . ______ per: 7 *(Dollars)* *(Cents)* (148) 1 ☐ Hour **OR** (149) $ ________ . 00 per: 7 *(Dollars only)* (150) 2 ☐ Day 3 ☐ Week 4 ☐ Biweekly 5 ☐ Month 6 ☐ Year 7 ☐ Other – *Specify* ________
b. How many hours per week do you usually work at this job?	b.	(151) ______ Hours per week
c. When did you start working as a *(entry in 36d)* **for** *(entry in 36a)?*	c.	(152) Month ¦ Day ¦ Year
38a. Before you began to work as a *(entry in 31e)* **for** *(entry in 31a)* **did you do any other kind of work for** *(entry in 31a)?*	38a.	(153) 1 ☐ Yes – *SKIP to 39a* 2 ☐ No
b. Excluding paid vacations and paid sick leave, during the time you have worked at this job, were there any full weeks in which you didn't work *(since date of last interview)?*	b.	☐ Yes – **How many weeks?** (154) ______ Weeks 0 ☐ No – *SKIP to Check Item M*
c. Why were you not working during these ______ weeks?	c.	(155) 1 ☐ Ill or disabled, unable to work 2 ☐ In school 3 ☐ Personal, family reasons 4 ☐ Child-care problems 5 ☐ Pregnancy 6 ☐ Layoff 7 ☐ Labor dispute 8 ☐ Did not want to work 9 ☐ Other – *Specify* ________
CHECK ITEM M		*Refer to items 31h and 110R –* ☐ Current job started before date of last interview – *SKIP to Check Item T on page 15* ☐ Current job started date of last interview or later – *SKIP to 40*
39a. When did you start working as a *(entry in 31e)* **for** *(entry in 31a)?*	39a.	(156) Month ¦ Day ¦ Year
b. Excluding paid vacations and paid sick leave, during the time you have worked as a *(entry in 31e)*, **for** *(entry in 31a)*, **were there any full weeks in which you didn't work** *(since date of last interview)?*	b.	☐ Yes – **How many weeks?** (157) ______ Weeks 0 ☐ No – *SKIP to Check Item N*
c. Why were you not working during these ______ weeks?	c.	(158) 1 ☐ Own illness 2 ☐ School 3 ☐ Personal, family reasons 4 ☐ Child-care problems 5 ☐ Pregnancy 6 ☐ Layoff 7 ☐ Labor dispute 8 ☐ Did not want to work 9 ☐ Other
CHECK ITEM N		*Refer to items 39a and 110R –* ☐ Item 39a is earlier than date of last interview – *SKIP to Check Item T on page 15* ☐ Item 39a is date of last interview or later – *ASK 40*
40. Just before you started on this job, was there a period of a week or more in which you were not working?	40.	(159) 1 ☐ Yes – *SKIP to 53 on page 14* 2 ☐ No – *SKIP to 43 on page 14*

FORM LGT-481 (9-20-72)

II. CURRENT LABOR FORCE STATUS AND WORK HISTORY – Continued

41a. You said you last worked at a regular job on *(entry in 29g or 30). (Interviewer: Use calendar to determine the number of weeks since respondent last worked.)*

That would be about________weeks since you last worked. In how many of these weeks were you looking for work or on layoff from a job?

41a.
(1) ⑯⓪ ______ Weeks since last worked
(2) ⑯① ______ Weeks looking or on layoff

CHECK ITEM O
☐ 41a(1) is equal to 41a(2) – *SKIP to 43a*
☐ 41a(1) is greater than 41a(2) – *ASK b*

41b. That leaves________weeks that you were not working or looking for work. What would you say was the main reason you were not looking for work during that period?

41b.
(162) ______ Weeks
(163) 1 ☐ Ill or disabled, unable to work
2 ☐ In school
3 ☐ Personal, family reasons
4 ☐ Child-care problems
5 ☐ Pregnancy
6 ☐ Couldn't find work
7 ☐ Vacation
8 ☐ Did not want to work
9 ☐ Other – Specify____________

SKIP to 43

42a. Since *(date of last interview)* **in how many different weeks did you do any work at all?**

42a.
(164) ______ Weeks
0 ☐ None

b. Since *(date of last interview)* **have you spent any weeks looking for work or on layoff from a job?**

b.
(165) ☐ Yes – **How many weeks?**
______ Weeks
0 ☐ No

CHECK ITEM P

Refer to 42a and b and 110R –
Interviewer: Use calendar to determine the number of weeks since date of last interview.

(1) (166) ______ Weeks since date of last interview
(2) (167) ______ Weeks working, on layoff or looking for work *(items 42a + 42b)*
☐ (1) is equal to (2) – *SKIP to Check Item T*
☐ (1) is greater than (2) – *ASK c*

42c. What would you say was the main reason you were not working or looking for work during (the rest of) that time?

42c.
(168) 1 ☐ Ill or disabled, unable to work
2 ☐ In school
3 ☐ Personal, family reasons
4 ☐ Child-care problems
5 ☐ Pregnancy
6 ☐ Couldn't find work
7 ☐ Vacation
8 ☐ Did not want to work
9 ☐ Other – Specify____________

SKIP to Check Item T

Notes

(169)
(170)

FORM LGT-481 (9-20-72)

II. CURRENT LABOR FORCE STATUS AND WORK HISTORY – Continued

		(1)	(2)	(3)
43. Now let's talk about – **The job you worked at before you started to work as a** *(ENTRY IN 31e or 43e)* **for** *(ENTRY IN 31a or 43a)* **The last job you worked at; that is, the one which ended on** *(ENTRY IN 29g OR 30)*	43a.	(171) ☐ Same as 31a – *SKIP to 43e*	(197) ☐ Never worked before – *SKIP to Check Item T* ☐ Same as ____ – *SKIP to 43e*	(223) ☐ Never worked before – *SKIP to Check Item T* ☐ Same as ____ – *SKIP to 43e*
a. For whom did you work? (Name of company, business, organization or other employer) **b. In what city and State is . . . located?**	b.	(172) ☐☐ City, State	(198) ☐☐ City, State	(224) ☐☐ City, State
c. What kind of business or industry is this? *(E.g. – TV and radio manufacturer, retail shoe store, State Labor Department, farm)*	c.	(173) ☐☐☐	(199) ☐☐☐	(225) ☐☐☐
d. Class of worker	d.	(174) 1 ☐ P 2 ☐ G 3 ☐ O 4 ☐ WP	(200) 1 ☐ P 2 ☐ G 3 ☐ O 4 ☐ WP	(226) 1 ☐ P 2 ☐ G 3 ☐ O 4 ☐ WP
e. What kind of work were you doing? *(E.g. – sales clerk, high school English teacher, waitress)*	e.	(175) ☐☐☐	(201) ☐☐☐	(227) ☐☐☐
f. What were your most important activities or duties? *(E.g. – selling clothing, keeping account books, teaching mathematics, typing)*	f.			
g. What was your job title?	g.			
44a. Altogether, how much did you usually earn at this job before all deductions?	44a.	(176) $ ____ . ____ per: (177) 1 ☐ Hr. 3 ☐ Wk. 5 ☐ Mo. ☐ Other – Specify ____	(202) $ ____ . ____ per: (203) 1 ☐ Hr. 3 ☐ Wk. 5 ☐ Mo. ☐ Other – Specify ____	(228) $ ____ . ____ per: (229) 1 ☐ Hr. 3 ☐ Wk. 5 ☐ Mo. ☐ Other – Specify ____
b. How many hours per week did you usually work at this job?	b.	(178) ____ Hours per week	(204) ____ Hours per week	(230) ____ Hours per week
45a. When did you start working as a *(ENTRY IN 43e)* **for** *(ENTRY IN 43a)*?	45a.	(179) Month Day Year	(205) Month Day Year	(231) Month Day Year
b. When did you stop working as a *(ENTRY IN 43e)* **for** *(ENTRY IN 43a)*?	b.	(180) Month Day Year x ☐ *Still working there – SKIP to 47*	(206) Month Day Year x ☐ *Still working there – SKIP to 47*	(232) Month Day Year x ☐ *Still working there – SKIP to 47*
46a. Why did you happen to leave this job (change the kind of work you were doing)?	46a.	(181) ☐☐	(207) ☐☐	(233) ☐☐
b. Did you have a new job lined up before you left this one?	b.	(182) 1 ☐ Yes 2 ☐ No	(208) 1 ☐ Yes 2 ☐ No	(234) 1 ☐ Yes 2 ☐ No
47. Excluding paid vacations and paid sick leave, during the time you worked at this job were there any full weeks in which you didn't work on this job *(since date of last interview)*?	47.	(183) ☐ Yes – How many weeks? ____ Weeks – *ASK 48a* 0 ☐ No – *SKIP to Check Item Q*	(209) ☐ Yes – How many weeks? ____ Weeks – *ASK 48a* 0 ☐ No – *SKIP to Check Item Q*	(235) ☐ Yes – How many weeks? ____ Weeks – *ASK 48a* 0 ☐ No – *SKIP to Check Item Q*
48a. Why were you not working during these . . . weeks at this job?	48a.	(184) 1 ☐ Own illness 2 ☐ In school 3 ☐ Personal family reasons 4 ☐ Child care problems 5 ☐ Pregnancy 6 ☐ Layoff 7 ☐ Labor dispute 8 ☐ Did not want to work 9 ☐ Other	(210) 1 ☐ Own illness 2 ☐ In school 3 ☐ Personal family reasons 4 ☐ Child care problems 5 ☐ Pregnancy 6 ☐ Layoff 7 ☐ Labor dispute 8 ☐ Did not want to work 9 ☐ Other	(236) 1 ☐ Own illness 2 ☐ In school 3 ☐ Personal family reasons 4 ☐ Child care problems 5 ☐ Pregnancy 6 ☐ Layoff 7 ☐ Labor dispute 8 ☐ Did not want to work 9 ☐ Other

b. Were you working for someone else during this period(s)?	b.	(185) 1 ☐ **Yes** – *GO to next column, enter data about this job* 2 ☐ **No**	(211) 1 ☐ **Yes** – *GO to next column, enter data about this job* 2 ☐ **No**	(237) 1 ☐ **Yes** – *GO to next column, enter data about this job* 2 ☐ **No**
CHECK ITEM Q Item 45a is: 1. Date of last interview or later 2. Before date of last interview	1. 2.	☐ – *ASK 49* ☐ – *SKIP to 50*	☐ – *ASK 49* ☐ – *SKIP to 50*	☐ – *ASK 49* ☐ – *SKIP to 50*
49. Did you do any other kind of work for *(ENTRY IN 43a)* **between** *(DATE IN 45a)* **and** *(DATE OF LAST INTERVIEW)*?	49.	(186) 1 ☐ **Yes** – *GO to next column, enter data about this job* 2 ☐ **No** – *SKIP to 51*	(212) 1 ☐ **Yes** – *GO to next column, enter data about this job* 2 ☐ **No** – *SKIP to 51*	(238) 1 ☐ **Yes** – *GO to next column, enter data about this job* 2 ☐ **No** – *SKIP to 51*
50. Have you worked for anyone else since *(date of last interview)*?	50.	(187) 1 ☐ **Yes** – *GO to next column, enter information* 2 ☐ **No** – *SKIP to Check Item T*	(213) 1 ☐ **Yes** – *GO to next column, enter information* 2 ☐ **No** – *SKIP to Check Item T*	(239) 1 ☐ **Yes** – *GO to next column, enter information* 2 ☐ **No** – *SKIP to Check Item T*
51. While you were working for *(ENTRY IN 43a)*, **were you also working for someone else?**	51.	(188) 1 ☐ **Yes** – *GO to next column, enter data about simultaneous job* 2 ☐ **No** – *ASK 52*	(214) 1 ☐ **Yes** – *GO to next column, enter data about simultaneous job* 2 ☐ **No** – *ASK 52*	(240) 1 ☐ **Yes** – *GO to next column, enter data about simultaneous job* 2 ☐ **No** – *ASK 52*
52. Just before you started working as a *(ENTRY IN 43e)* **for** *(ENTRY IN 43a)* **was there a period of a week or more in which you were not working?**	52.	(189) 1 ☐ **Yes** – *ASK 53* 2 ☐ **No** – *GO to next column, enter data about previous job*	(215) 1 ☐ **Yes** – *ASK 53* 2 ☐ **No** – *GO to next column, enter data about previous job*	(241) 1 ☐ **Yes** – *ASK 53* 2 ☐ **No** – *GO to next column, enter data about previous job*
53. When did this period in which you were not working start?	53.	(190) Month Day Year x ☐ Never worked before	(216) Month Day Year x ☐ Never worked before	(242) Month Day Year x ☐ Never worked before
54a. Interviewer: Determine number of weeks not working. If item 53 is before date of last interview count only weeks since that time.	54a.	(191) ______ Weeks not working	(217) ______ Weeks not working	(243) ______ Weeks not working
b. That would be about . . . weeks that you were not working. How many of those weeks were you looking for work or on layoff from a job?	b.	(192) ______ Weeks looking or on layoff	(218) ______ Weeks looking or on layoff	(244) ______ Weeks looking or on layoff
CHECK ITEM R 1. 54a is equal to 54b 2. 54a is greater than 54b	1. 2.	☐ – *SKIP to Check Item S* ☐ – *ASK 55a*	☐ – *SKIP to Check Item S* ☐ – *ASK 55a*	☐ – *SKIP to Check Item S* ☐ – *ASK 55a*
55a. That leaves . . . weeks that you were not working or looking for work. What would you say was the main reason that you were not looking for work during that period?	55a.	(193) 1 ☐ Ill or disabled, unable to work 2 ☐ In school 3 ☐ Personal family reasons 4 ☐ Child care problems 6 ☐ Couldn't find work 7 ☐ Vacation 8 ☐ Did not want to work 9 ☐ Other *SKIP to Check Item S* 5 ☐ Pregnancy, birth or acquired children – *ASK b*	(219) 1 ☐ Ill or disabled, unable to work 2 ☐ In school 3 ☐ Personal family reasons 4 ☐ Child care problems 6 ☐ Couldn't find work 7 ☐ Vacation 8 ☐ Did not want to work 9 ☐ Other *SKIP to Check Item S* 5 ☐ Pregnancy, birth or acquired children – *ASK b*	(245) 1 ☐ Ill or disabled, unable to work 2 ☐ In school 3 ☐ Personal family reasons 4 ☐ Child care problems 6 ☐ Couldn't find work 7 ☐ Vacation 8 ☐ Did not want to work 9 ☐ Other *SKIP to Check Item S* 5 ☐ Pregnancy, birth or acquired children – *ASK b*
b. When was your baby born (did you assume charge of this child)?	b.	(194) Month Year x ☐ Not born yet	(220) Month Year x ☐ Not born yet	(246) Month Year x ☐ Not born yet
c. Were you employed within one year before (this pregnancy, birth of child, child came to live with you)?	c.	(195) 1 ☐ Yes – *ASK d* 2 ☐ No – *SKIP to Check Item S*	(221) 1 ☐ Yes – *ASK d* 2 ☐ No – *SKIP to Check Item S*	(247) 1 ☐ Yes – *ASK d* 2 ☐ No – *SKIP to Check Item S*
d. Did you receive maternity leave or some assurance that your job would be held for you?	d.	(196) 1 ☐ Yes 2 ☐ No	(222) 1 ☐ Yes 2 ☐ No	(248) 1 ☐ Yes 2 ☐ No
CHECK ITEM S 1. Item 53 is date of last interview or later 2. Item 53 is before date of last interview	1. 2.	☐ – *GO to next column, enter data about previous job* ☐ – *SKIP to Check Item T*	☐ – *GO to next column, enter data about previous job* ☐ – *SKIP to Check Item T*	☐ – *GO to next column, enter data about previous job* ☐ – *SKIP to Check Item T*

III. WORK ATTITUDES

CHECK ITEM T		☐ Respondents enrolled in school ("Yes" in item 1) – *SKIP to 56c* ☐ Respondents not enrolled in school ("No" in item 1) – *ASK 56a*
56a. In what year did you stop going to school full time? *(Record the year and mark the appropriate box)*	56a.	(327) ______Year 1 ☐ 1971 or before – *ASK b* (328) 2 ☐ 1972 or 1973 – *SKIP to c.*
b. In how many of the ______ year since you left school would you say that you worked at least six months?	b.	(329) ______Years
c. Did you do any unpaid volunteer work for an organization in the past 12 months?	c.	(330) 1 ☐ Yes – *ASK d and e* 2 ☐ No – *SKIP to Check Item U*
d. Describe the kind of work you did (e.g., hospital aid, teacher's aid, scout leader, fund raiser).	d.	(331) ☐ ______
e. About how many hours of unpaid volunteer work did you do . . . *(Read categories)*	e.	(332) ______Last week (333) ______Past 12 months
CHECK ITEM U		Respondent is in – ☐ Labor Force Group A ("WK" or "J" in 26 or "Yes" in 27a or 28a) – *SKIP to Check Item V* ☐ Labor Force Group B ("LK" in 26 or "Yes" in 29a) – *SKIP to 59a* ☐ Labor Force Group C (All others) – *ASK 57a*
57a. Do you intend to look for work of any kind in the next 12 months?	57a.	1 ☐ Yes – definitely } ASK b 2 ☐ Yes – probably } ASK b ☐ Maybe – **What does it depend on?** ______ } *SKIP to 58a* 3 ☐ No } *SKIP to 58a* 4 ☐ Don't know } *SKIP to 58a*
b. When do you intend to start looking for work?	b.	(335) ______ Month
c. What kind of work do you think you will look for?	c.	(336) ☐☐☐
d. What will you do to find work? *(Mark as many as apply)*	d.	(337) Check with { 1 ☐ State employment agency (or counselor) 2 ☐ Private employment agency 3 ☐ Employer directly 4 ☐ Friends or relatives } 5 ☐ Placed or answered ads 6 ☐ School employment service 7 ☐ Other – *Specify* ______
58a. Why would you say that you are not looking for work at this time?	58a.	(338) 1 ☐ Health reasons 2 ☐ School 3 ☐ Personal, family reasons 4 ☐ Child care problems 5 ☐ Pregnancy 6 ☐ Husband (parents) would not permit 7 ☐ Believes no work available 8 ☐ Does not want to work at this time of year 9 ☐ Other or no reason
b. If you were offered a job by some employer in THIS AREA, do you think you would take it?	b.	Yes (339) 1 ☐ Definitely 2 ☐ If it is something I can do 3 ☐ If satisfactory wage 4 ☐ If satisfactory location 5 ☐ If child care available 6 ☐ If husband (parents) agree 7 ☐ If other ______ } ASK c No 8 ☐ Health won't permit 9 ☐ It will interfere with school 10 ☐ Parents (husband) don't want me to 11 ☐ Too busy with home and/or family 12 ☐ Other ______ } SKIP to 66 on page 17
c. How many hours per week would you be willing to work?	c.	(340) 1 ☐ 1–4 2 ☐ 5–14 3 ☐ 15–24 4 ☐ 25–34 5 ☐ 35–40 6 ☐ 41–48 7 ☐ 49 or more
d. What kind of work would it have to be?	d.	(341) ☐☐☐

III. WORK ATTITUDES – Continued

58e. What would the wage or salary have to be?

58e.

(342) $________ . ______ per: 7
(Dollars) (Cents)

(343) 1 ☐ Hour

OR

(344) $________ . 00 per: 7
(Dollars only)

(345) 2 ☐ Day
3 ☐ Week
4 ☐ Biweekly
5 ☐ Month
6 ☐ Year
7 ☐ Other – *Specify* ________

SKIP to 66

59a. What type of work are you looking for?

59a. (346) ☐☐☐

b. What would the wage or salary have to be for you to be willing to take it?

b.

(347) $________ . ______ per: 7
(Dollars) (Cents)

(348) 1 ☐ Hour

OR

(349) $________ . 00 per: 7
(Dollars only)

(350) 2 ☐ Day
3 ☐ Week
4 ☐ Biweekly
5 ☐ Month
6 ☐ Year
7 ☐ Other – *Specify* ________

c. Are there any restrictions, such as hours or location of job that would be a factor in your taking a job?

c. (351) 1 ☐ Yes – *ASK d*
2 ☐ No – *SKIP to e*

d. What are these restrictions?

d. (352) ☐ ________

e. How many hours per week would you like to work?

e. (353) ______ Hours – *SKIP to 66*

CHECK ITEM V

Respondent –
☐ Was in Labor Force Group C last year *(Item 114R on Information Sheet)* – ASK 60
☐ All others – SKIP to 61a

60. At this time last year, you were not looking for work. What made you decide to take a job?

60. (354) 1 ☐ Recovered from illness
2 ☐ Bored
3 ☐ Completed education
4 ☐ Needed money
5 ☐ Home responsibilities no longer prevent me from working
6 ☐ Other – *Specify* ________

61a. How do you feel about the job you have now? Do you like it very much, like it fairly well, dislike it somewhat, dislike it very much?

61a. (355) 1 ☐ Like it very much
2 ☐ Like it fairly well
3 ☐ Dislike it somewhat
4 ☐ Dislike it very much

b. What are the things you like best about your job?

b. (1) (356) ☐☐
(2) (357) ☐☐
(3) (358) ☐☐

c. What are the things about your job that you don't like?

c. (1) (359) ☐☐
(2) (360) ☐☐
(3) (361) ☐☐

III. WORK ATTITUDES – Continued

62a. Suppose someone IN THIS AREA offered you a job in the same line of work you're in now. How much would the new job have to pay for you to be willing to take it? *(If amount given per hour, record dollars and cents. Otherwise, round to the nearest dollar.)*	62a. (362) $ ________ . ______ per: ↴ *(Dollars)* *(Cents)* (363) 1 ☐ Hour **OR** (364) $ ________ . 00 per: ↴ *(Dollars only)* (365) 2 ☐ Day 3 ☐ Week 4 ☐ Biweekly 5 ☐ Month 6 ☐ Year 7 ☐ Other – *Specify* ________ (366) 8 ☐ I wouldn't take it at any conceivable pay 9 ☐ I would take a steady job at same or less pay 10 ☐ Would accept job; don't know specific amount 11 ☐ Don't know 12 ☐ Other
b. If someone IN THIS AREA offered you a job at your present rate of pay in a different line of work for which you are qualified, do you think you would take it?	b. (367) 1 ☐ Yes – *ASK c* 2 ☐ No – *SKIP to Check Item W*
c. What kind of work would you accept?	c. (368) ☐☐☐
CHECK ITEM W	*Refer to item 13 on the cover page and to item I* – ☐ Respondent not married and not enrolled in school – *ASK 63* ☐ All other – *SKIP to Check Item X*
63. What if this job was in the same line of work you are in now, but was IN SOME OTHER PART OF THE COUNTRY – how much would it have to pay in order for you to be willing to take it? *(If amount given per hour, record dollars and cents. Otherwise, round to the nearest dollar.)*	63. (369) $ ________ . ______ per: ↴ *(Dollars)* *(Cents)* (370) 1 ☐ Hour **OR** (371) $ ________ . 00 per: ↴ *(Dollars only)* (372) 2 ☐ Day 3 ☐ Week 4 ☐ Biweekly 5 ☐ Month 6 ☐ Year 7 ☐ Other – *Specify* ________ (373) 8 ☐ I wouldn't take it at any conceivable pay 9 ☐ I would take a steady job at same or less pay 10 ☐ Would accept job; don't know specific amount 11 ☐ Depends on location, cost of living 12 ☐ Don't know 13 ☐ Other
CHECK ITEM X	*Refer to item 114R on the Information Sheet.* ☐ Respondent in Labor Force Group A in 1972 – *ASK 64* ☐ All other – *SKIP to 66*
64. Would you say you like your present job more, less, or about the same as (the job you held) last year?	64. (374) 1 ☐ More } ASK 65 2 ☐ Less } ASK 65 3 ☐ Same – *SKIP to 66*
65. What would you say is the main reason that you like your present job (more, less)?	65. (375) ☐☐
66. What would you say is the more important thing about any job – good wages or liking the kind of work you are doing?	66. (376) 1 ☐ Good wages 2 ☐ Liking the work

III. WORK ATTITUDES – Continued

67a. Would you say that during the past year there has been any change in your feeling about having a job outside the home for pay?

67a. (377)
1 ☐ Yes – ASK b and c
2 ☐ No
3 ☐ Don't know
} SKIP to 68

b. In what way has your feeling changed?

b. (378) ☐ ______________________

c. Why would you say your thinking has changed?

c. (379) ☐ ______________________

68. **We would like to find out whether people's outlook on life has any effect on the kind of jobs they have, the way they look for work, how much they work, and matters of that kind. On each of these cards is a pair of statements, numbered 1 and 2. For each pair, please select ONE statement which is closer to your opinion. In addition, tell me whether the statement you select is MUCH CLOSER to your opinion or SLIGHTLY CLOSER.**

In some cases you may find that you believe both statements; in other cases you may believe neither one. Even when you feel this way about a pair of statements, select the one statement which is more nearly true in your opinion.

Try to consider each pair of statements separately when making your choices; do not be influenced by your previous choices.

a. (380)
1 ☐ Many of the unhappy things in people's lives are partly due to bad luck.
2 ☐ People's misfortunes result from the mistakes they make.

Is this statement much closer or slightly closer to your opinion?

8 ☐ Much
9 ☐ Slightly

b. (381)
1 ☐ In the long run, people get the respect they deserve in this world.
2 ☐ Unfortunately, an individual's worth often passes unrecognized no matter how hard he tries.

Is this statement much closer or slightly closer to your opinion?

8 ☐ Much
9 ☐ Slightly

c. (382)
1 ☐ Without the right breaks, one cannot be an effective leader.
2 ☐ Capable people who fail to become leaders have not taken advantage of their opportunities.

Is this statement much closer or slightly closer to your opinion?

8 ☐ Much
9 ☐ Slightly

d. (383)
1 ☐ Becoming a success is a matter of hard work; luck has little or nothing to do with it.
2 ☐ Getting a good job depends mainly on being in the right place at the right time.

Is this statement much closer or slightly closer to your opinion?

8 ☐ Much
9 ☐ Slightly

e. (384)
1 ☐ What happens to me is my own doing.
2 ☐ Sometimes I feel that I don't have enough control over the direction my life is taking.

Is this statement much closer or slightly closer to your opinion?

8 ☐ Much
9 ☐ Slightly

III. WORK ATTITUDES – Continued

f. (385) *

1 ☐ When I make plans, I am almost certain that I can make them work.

2 ☐ It is not always wise to plan too far ahead, because many things turn out to be a matter of good or bad fortune anyhow.

Is this statement much closer or slightly closer to your opinion?

8 ☐ Much 9 ☐ Slightly

g. (386) *

1 ☐ In my case, getting what I want has little or nothing to do with luck.

2 ☐ Many times we might just as well decide what to do by flipping a coin.

Is this statement much closer or slightly closer to your opinion?

8 ☐ Much 9 ☐ Slightly

h. (387) *

1 ☐ Who gets to be boss often depends on who was lucky enough to be in the right place first.

2 ☐ Getting people to do the right thing depends upon ability; luck has little or nothing to do with it.

Is this statement much closer or slightly closer to your opinion?

8 ☐ Much 9 ☐ Slightly

i. (388) *

1 ☐ Most people don't realize the extent to which their lives are controlled by accidental happenings.

2 ☐ There is really no such thing as "luck."

Is this statement much closer or slightly closer to your opinion?

8 ☐ Much 9 ☐ Slightly

j. (389) *

1 ☐ In the long run, the bad things that happen to us are balanced by the good ones.

2 ☐ Most misfortunes are the result of lack of ability, ignorance, laziness, or all three.

Is this statement much closer or slightly closer to your opinion?

8 ☐ Much 9 ☐ Slightly

k. (390) *

1 ☐ Many times I feel that I have little influence over the things that happen to me.

2 ☐ It is impossible for me to believe that chance or luck plays an important role in my life.

Is this statement much closer or slightly closer to your opinion?

8 ☐ Much 9 ☐ Slightly

IV. FUTURE JOB PLANS

69. Now I would like to talk to you about your future job plans. What kind of work would you like to be doing when you are 35 years old?

69. (391) ☐☐☐

____

____

(392) 1 ☐ Married, keeping house, raising a family

2 ☐ Same as present job

3 ☐ Don't know

CHECK ITEM Y

Refer to Item 117R on the Information Sheet.

(393) 1 ☐ Respondent's future job plans are the same as when last interviewed – *(Entries in 69 and item 117R on the Information Sheet are the same)* – SKIP to Check Item Z

2 ☐ Respondent's future job plans differ from when last interviewed – *(Entries in 69 and item 117R on the Information Sheet differ)* – ASK 70

3 ☐ Respondent not asked about future job plans or "other" or "Don't know" in Item 117R – SKIP to Check Item Z

70. When we last interviewed you, you said you thought that you'd like to be *(Entry in item 117R on Information Sheet)*. **Why would you say you have changed your plans?**

70. (394) ☐

____

V. RETROSPECTIVE WORK HISTORY

CHECK ITEM Z	*Refer to items 112R and I* ☐ Respondent enrolled in school in 1971, 1972 **or** 1973 – *SKIP to 78a* ☐ Respondent **not** enrolled in school in 1971, 1972 **and** 1973 – *GO to Check Item AA*
CHECK ITEM AA	*Refer to items 31a, 115R and 116R* ☐ Respondent with the same employer (or self-employed status) in 1971, 1972 **and** 1973 – *Read introductory statement and ASK 71a* ☐ All other – *SKIP to 74 on page 22*

71. Now I'd like for you to look back over the past two years and give me some of your reactions to it.

a. Since February 1971, have you ever looked for another job except during periods of layoff?	71a.	(395) 1 ☐ Yes – *ASK b* 2 ☐ No – *SKIP to 72a*
b. Would you say that you have looked for another job frequently, occasionally or just once?	b.	(396) 1 ☐ Frequently 2 ☐ Occasionally 3 ☐ Just once
c. In what year was that *(most recent if more than one)*?	c.	(397) 19____
d. Why did you decide to look for another job at that (this) time?	d.	(398) ☐☐ (399) ☐☐
e. How did you go about looking? *(Mark all methods used; do not read list.)*	e.	(400) Check with 1 ☐ State employment agency (or counselor) Check with 2 ☐ Private employment agency Check with 3 ☐ Employer directly Check with 4 ☐ Friends or relatives 5 ☐ Placed or answered ads 6 ☐ School employment service 7 ☐ Other – *Specify* ________
f. What kind of work were you looking for?	f.	(401) ☐☐☐
g. Were you looking for work in the same local area as you were living at that time?	g.	(402) 1 ☐ Yes 2 ☐ No
h. Did you find a job that you could have had?	h.	(403) 1 ☐ Yes – *ASK i* 2 ☐ No – *SKIP to p*
i. What kind of work was it?	i.	(404) ☐☐☐
j. What kind of business or industry was it?	j.	(405) ☐☐☐
k. Where was the job located?	k.	(406) ☐ ________ County ________ State
l. What would the job have paid?	l.	(407) $______ . ____ per: *(Dollars)* *(Cents)* (408) 1 ☐ Hour (409) $______ . 00 per: *(Dollars only)* (410) 2 ☐ Day 3 ☐ Week 4 ☐ Biweekly 5 ☐ Month 6 ☐ Year 7 ☐ Other – *Specify* ________
m. How many hours per week would the job have involved?	m.	(411) ______ Hours per week
n. Did you accept this job?	n.	(412) 1 ☐ Yes – *SKIP to 74* 2 ☐ No – *ASK o*
o. Why did you decide not to take it?	o.	(413) ☐☐ (414) ☐☐ SKIP to 74
p. Why do you think you were unable to find anything?	p.	(415) ☐☐ (416) ☐☐

V. RETROSPECTIVE WORK HISTORY – Continued

72a. Since February 1971, has any other employer made you a definite offer of a full-time job that you did not accept?	72a. ☐ Yes – How many times? (417) ______ – ASK b 0 ☐ No – SKIP to 73a
b. In what year was that (*most recent if more than one*)?	b. (418) 19____
c. How did you happen to get the offer?	c. (419) 1 ☐ Job offered by a friend, relative 2 ☐ Job offered by a business acquaintance 3 ☐ Job offered by a former employer 4 ☐ Other – Specify ______
d. What kind of work was it?	d. (420) ☐☐☐
e. What kind of business or industry was it?	e. (421) ☐☐☐
f. Was this job located in the same local area as you were living at that time?	f. (422) 1 ☐ Yes 2 ☐ No
g. What would the job have paid?	g. (423) $______ . ______ per: 7 (Dollars) (Cents) (424) 1 ☐ Hour (425) $______ . 00 per: 7 (Dollars only) (426) 2 ☐ Day 3 ☐ Week 4 ☐ Biweekly 5 ☐ Month 6 ☐ Year 7 ☐ Other – Specify ______
h. How many hours per week would this job have involved?	h. (427) ______ Hours per week
i. Why did you decide not to take it?	i. (428) ☐☐ (429) ☐☐ ______ SKIP to 74
☐ If item 71a is "Yes" – SKIP to 74 73a. During this period have you ever seriously thought of looking for another job?	73a. (430) 1 ☐ Yes – ASK b 2 ☐ No – ASK d
b. Why would you say you've thought of looking?	b. (431) ☐☐ ______ (432) ☐☐ ______
c. Why didn't you actually look for a job?	c. (433) ☐☐ (434) ☐☐ ______ SKIP to 74
d. Why not?	d. (435) ☐☐ (436) ☐☐ ______

V. RETROSPECTIVE WORK HISTORY – Continued

74. In the past five years, since February 1968, for how many different employers have you worked?	74.	(437) ______ Employers – *ASK 75a* 0 ☐ Not worked since February 1968 – *SKIP to 78a*
75a. All in all, so far as your work is concerned, would you say that you've progressed during the past two years, moved backward, or just about held your own?	75a.	(438) 1 ☐ Progressed – *ASK b* 2 ☐ Moved backward – *SKIP to c* 3 ☐ Held own } *SKIP to Check Item BB* 4 ☐ Not worked }
b. In what way(s) would you say you have progressed?	b.	(439) ☐☐ (440) ☐☐ ______ (441) ☐☐ ______ } *SKIP to Check Item BB*
c. In what way(s) would you say you have moved backward?	c.	(442) ☐☐ (443) ☐☐ ______ (444) ☐☐ ______
CHECK ITEM BB		*Refer to 112R* ☐ Respondent enrolled in school 1 or more years since 1968 – *SKIP to 78a* ☐ All others – *ASK 76*
76. Excluding paid vacation and paid sick leave, since February 1968 – about how many different weeks were you NOT working?	76.	(445) ______ Weeks – *ASK 77a* 0 ☐ None – *SKIP to 78a*
77a. How many of these *(entry in 76)* **weeks were you looking for work or on layoff from a job?**	77a.	(446) ______ Weeks 0 ☐ None
b. That means there were about *(entry in 76 less entry in 77a)* **weeks since February 1968 you were not working or looking for work. Is that correct?**	b.	☐ Yes – *GO to 78a* ☐ No – *Determine whether 76 or 77a is incorrect and make necessary correction*

Notes

VI. HEALTH

78a. Do you have any health problem or physical condition that limits in anyway the amount or kind of work you can do?	78a.	(447) 1 ☐ Yes – *ASK b* 2 ☐ No – *SKIP to d*
b. What is the nature of that health problem?	b.	(464) ____________________
c. How long have you been limited in this way? *(Specify number of months if less than a year)*	c.	(448) _____ Year(s) OR (449) _____ Months *(If less than 1 year)*
d. Do you have any health problems that in anyway limit your other activities?	d.	(450) 1 ☐ Yes – *ASK e* 2 ☐ No – *SKIP to 79*
e. What activities are limited? *(Mark as many as apply)*	e.	(451) 1 ☐ Housework (452) 2 ☐ School (453) 3 ☐ Child-care (454) 4 ☐ Recreation (455) 5 ☐ Other
79. During the past three years, has your health become better, remained the same, or become worse?	79.	(456) 1 ☐ Better 2 ☐ Same 3 ☐ Worse
☐ Respondent not married spouse present – *SKIP to 81a* **80a. Does your husband's health or physical condition limit in anyway the amount or kind of work he can do?**	80a.	(457) 1 ☐ Yes – *ASK b and c* 2 ☐ No – *SKIP to 81a*
b. In what way is his work limited?	b.	(465) ____________________
c. How long has he been limited in this way? *(Specify number of months if less than a year)*	c.	(458) _____ Year(s) (459) _____ Months *(If less than 1 year)*
☐ Respondent (and husband) lives alone – *SKIP to 82a* **81a. Is there any one (else) in this family living here who is not working or not going to school because of poor health?** *(Mark as many as apply)*	81a.	(460) ☐ Yes – **Who is it?** 1 ☐ Son 2 ☐ Daughter 3 ☐ Parent (in-law) 4 ☐ Other – *Specify* ↗ ____________________ 5 ☐ No – *SKIP to 82a*
b. Does the health condition of this person in anyway affect the kind or amount of work you can do or where you work?	b.	(461) 1 ☐ Yes – **How?** ____________________ ____________________ 2 ☐ No
Notes		(462) ________ (463) ________

VII. ASSETS AND INCOME

82a. So far as your overall financial position is concerned, would you say you are better off, about the same, or worse off now than you were at this time last year?	82a.	(466)	1 ☐ Same – *SKIP to Check Item CC* 2 ☐ Better off 3 ☐ Worse off } *ASK b*
b. In what ways are you (better, worse) off?	b.	(467)	☐
CHECK ITEM CC			☐ Respondent (or husband) is **NOT** head of household – *SKIP to 85a* ☐ Respondent (or husband) is head of household – *ASK 83a*
83a. In the last 12 months, did you (or your husband) receive financial assistance from any of your relatives?	83a.	(468)	1 ☐ Yes – *ASK b and c* 2 ☐ No – *SKIP to 84a*
b. From whom?	b.	(469)	☐
c. How much did you receive?	c.	(470)	$ ______ . 00
84a. Is this house (apartment) owned or being bought by you (or your husband)?	84a.	(471)	1 ☐ Yes – *ASK b and c* 2 ☐ No – *SKIP to 85a*
b. About how much do you think this property would sell for on today's market?	b.	(472)	$ ______ . 00
c. About how much do you (or your husband) owe on this property for mortgages, back taxes, home improvement loans, etc.?	c.	(473)	$ ______ . 00 ☐ None
85a. Do you (or your husband) have any money in savings or checking accounts, savings and loan companies or credit unions?	85a.	(474)	☐ Yes – **How much altogether?** $ ______ . 00 ☐ No
b. Do you (or your husband) have any –	b.		
(1) U.S. Savings Bonds?	(1)	(475)	☐ Yes – **What is their face value?** $ ______ . 00 ☐ No
(2) Stocks, bonds, or mutual funds?	(2)	(476)	☐ Yes – **About how much is their market value?** $ ______ . 00 ☐ No
86a. Do you (or your husband) rent, own, or have an investment in a farm, business, or any other real estate?	86a.	(477)	1 ☐ Yes – *ASK b–d* 2 ☐ No – *SKIP to 87a*
b. Which one?	b.	(478)	1 ☐ Farm 2 ☐ Business 3 ☐ Real estate
c. About how much do you think this (business, farm, or other real estate) would sell for on today's market?	c.	(479)	$ ______ . 00
d. What is the total amount of debt and other liabilities on this (business, farm, or other real estate)?	d.	(480)	$ ______ . 00 ☐ None
87a. Do you (or your husband) own an automobile(s)?	87a.	(481)	1 ☐ Yes – *ASK b–d* 2 ☐ No – *SKIP to 88*
b. What is (are) the make and model year?	b.	(482) (483) (484)	______ Model year ______ Make ______ Model year ______ Make ______ Model year ______ Make
c. Do you owe any money on this (these) automobile(s)?	c.	 (485) (486) (487)	☐ Yes – **How much?** $ ______ . 00 $ ______ . 00 $ ______ . 00 ☐ No
d. How much would this (these) car(s) sell for on today's market?	d.	(488) (489) (490)	$ ______ . 00 $ ______ . 00 $ ______ . 00
88. Do you (or your husband) owe any (other) money to stores, banks, doctors, or anyone else, excluding 30-day charge accounts?	88.	(491)	☐ Yes – **How much?** $ ______ . 00 ☐ No

VII. ASSETS AND INCOME – Continued

Now I would like to ask a few questions about your income in the last 12 months.	RESPONDENT	HUSBAND ☐ Not married
89a. How much did you (or your husband) receive from wages, salary, commissions, or tips from all jobs, before deductions for taxes or anything else?	89a. (492) $________ . 00 ☐ None	(497) $________ . 00 ☐ None
b. Did you (or your husband) receive any income from working on your own or in your own business or farm? $______ less $______ = $______ (Gross income) (Expenses) (Net income)	b. ☐ Yes – How much? (493) $______ . 00 ☐ No	☐ Yes – How much? (498) $______ . 00 ☐ No
c. Did you (or your husband) receive any unemployment compensation?	c. ☐ Yes (1) How many weeks? (494) ______ (2) How much? (495) $______ . 00 ☐ No	☐ Yes How many weeks? (499) ______ How much? (500) $______ . 00 ☐ No
d. Did you (or your husband) receive any other income, such as rental income, interest or dividends, income as a result of disability or illness, etc.?	d. ☐ Yes – How much? (496) $______ . 00 ☐ No	☐ Yes – How much? (501) $______ . 00 ☐ No

CHECK ITEM DD	*Refer to Household Record Card.*	(502) 1 Respondent (and husband) live alone – SKIP to 90b 2 All others – ASK 90a *(If two or more RELATED respondents in household, ask 90a–b only once, and transcribe answers from the first to the other questionnaires.)*

90a. In the past 12 months, what was the total income of ALL family members living here?
(Show flashcard)

90a. (503)
1 ☐ Under $1,000
2 ☐ $1,000 – $1,999
3 ☐ 2,000 – 2,999
4 ☐ 3,000 – 3,999
5 ☐ 4,000 – 4,999
6 ☐ 5,000 – 5,999
7 ☐ 6,000 – 7,499
8 ☐ 7,500 – 9,999
9 ☐ 10,000 – 14,999
10 ☐ 15,000 – 24,999
11 ☐ 25,000 and over

b. Did anyone in this family receive any welfare or public assistance in the last 12 months?

b. (504)
1 ☐ Yes
2 ☐ No

Notes

VIII. FAMILY BACKGROUND

91a. How many persons not counting yourself (or your husband) are dependent upon you (or your husband) for at least one-half of their support?	91a.	(505) ______Number 0 ☐ None – *SKIP to Check Item EE*
b. Do any of these dependents live somewhere else other than here at home with you?	b.	☐ Yes – **How many?** (506) ______Number – *ASK c* 0 ☐ No – *SKIP to Check Item EE*
c. What is their relationship to you?	c.	(507) ☐
CHECK ITEM EE	*Determine whether or not respondent lives in the same area (SMSA or county) as when last interviewed.*	(508) 1 ☐ Respondent lives in same area (SMSA or county) as when last interviewed – *SKIP to 93d* 2 ☐ Respondent lives in different area (SMSA or county) than when last interviewed – *ASK 92a*
92a. When we last interviewed you, you were living in a different area. How many miles from here is that?	92a.	(509) ______Miles
b. How did you happen to move here?	b.	(510) ☐
☐ Respondent currently in school – *SKIP to 93c* **93a. Did you have a job lined up here at the time you moved?**	93a.	(511) 1 ☐ Yes, different from job held at time of move 2 ☐ Yes, same as job held at time of move 3 ☐ Yes, transferred job in same company *SKIP to c* 4 ☐ No – *ASK b*
b. How many weeks did you look before you found work?	b.	(512) ______Total weeks 00 ☐ Did not look for work – *SKIP to c* 99 ☐ Still haven't found work
(1) How many weeks did you look before you moved?	(1)	(513) ______Weeks before
(2) How many weeks did you look after you moved?	(2)	(514) ______Weeks after
c. Since we last interviewed you, have you lived in any area (SMSA or county) other than the present one or the one in which you lived when we interviewed you last?	c.	☐ Yes – **How many?** (515) ______________ 0 ☐ No SKIP to Check Item FF
d. Have you lived in any area (SMSA or county) other than the present one since we last interviewed you?	d.	☐ Yes – **How many?** (516) ______________ 0 ☐ No
CHECK ITEM FF	*Refer to item 118R and the cover page.*	(517) ☐ Respondent lives in same area as in 1968 – *SKIP to Check Item GG* ☐ All others – *ASK 94a*
94a. When we interviewed you in 1968, you lived in (entry in item 118R). All things considered, how do you feel about your move? Was it a good idea to move here?	94a.	(518) 1 ☐ Good idea – *ASK b* 2 ☐ Not good idea – *ASK c* 3 ☐ Don't know – *SKIP to d*
b. Why do you think it was a good idea?	b.	(519) ☐ ______________ ______________ SKIP to d
c. Why do you think it was not a good idea?	c.	(520) ☐ ______________ ______________
d. Did you have friends or relatives living here before you moved here?	d.	(521) 1 ☐ Yes 2 ☐ No

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VIII. FAMILY BACKGROUND – Continued

CHECK ITEM GG	*Refer to Household Record Card.* If father not listed, ask if father is living.	(522) 1 ☐ Father lives in household } SKIP to Check Item HH 2 ☐ Father deceased } 3 ☐ Other – *ASK 95a*

95a. During the past 12 months, about how many weeks did your father work either full-time or part-time not counting work around the house?	95a.	(523) ______ Weeks 00 ☐ Did not work } *SKIP to Check Item HH* 99 ☐ Don't know }
b. Did your father usually work full-time or part-time?	b.	(524) 1 ☐ Full-time 2 ☐ Part-time
c. What kind of work was he doing? *(If more than one, record the one worked at longest)*	c.	(525) ☐☐☐

CHECK ITEM HH	*Refer to Household Record Card.* If mother not listed, ask if mother is living.	(526) 1 ☐ Mother lives in household } SKIP to 97 2 ☐ Mother deceased } 3 ☐ Other – *ASK 96a*

96a. During the past 12 months, about how many weeks did your mother work either full-time or part-time not counting work around the house?	96a.	(527) ______ Weeks 00 ☐ Did not work } *SKIP to 97* 99 ☐ Don't know }
b. Did your mother usually work full-time or part-time?	b.	(528) 1 ☐ Full-time 2 ☐ Part-time
c. What kind of work was she doing? *(If more than one, record the one worked at longest)*	c.	(529) ☐☐☐
97. What language other than English was spoken in your home when you were a child?	97.	☐ (530) ____________________ ☐ No other language
98. In February 1968 were you – **a. Working at a job or business (full- or part-time)?**	98a.	(531) 1 ☐ Yes – *SKIP to 99* 2 ☐ No – *ASK b*
b. Attending college?	b.	(532) 1 ☐ Yes } *SKIP to Check Item II* 2 ☐ No }
99. Let's talk about your chief activity or business in February 1968.		
a. What kind of business or industry was this?	99a.	(533) ☐☐☐
b. What kind of work were you doing?	b.	(534) ☐☐☐
c. Were you – *(Read categories)*	c.	(535) 1 ☐ An employee of a private company or government agency 2 ☐ Self-employed or an unpaid family worker

CHECK ITEM II	☐ Respondent married or never married with own children in household – *SKIP to 102* ☐ Respondent widowed, divorced or separated – *SKIP to 101* ☐ All others – *ASK 100*

100. Since the attitudes and plans of young women, like yourself, are among the most important factors in estimating future population growth in the United States, I would like to ask you about your views toward family size.		
a. What do you think is the ideal number of children for a family?	100a.	(536) ______ Children
b. How many children do you ever expect to have?	b.	(537) ______ Children – *SKIP to Check Item JJ*

VIII. FAMILY BACKGROUND – Continued

101. Now, I'd like to ask about your views toward family size which is so important in studying population growth in the United States.		
a. What do you think is the ideal number of children for a family?	101a.	(538) _______ Children
b. How many children have you ever had, not counting stillbirths?	b.	(539) _______ Children
c. How many (more) children do you ever expect to have?	c.	(540) _______ Children – *SKIP to Check Item JJ*
102. Now, I'd like to ask you about your views toward family size which is so important in studying population growth in the United States.		
a. What do you think is the ideal number of children for a family?	102a.	(541) _______ Children
b. How many children have you ever had, not counting stillbirths?	b.	(542) _______ Children
c. Altogether, how many (more) children do you actually expect to have?	c.	(543) _______ Children 0 ☐ None – *SKIP to Check Item JJ*
d. How many children do you expect to have within the next five years?	d.	(544) _______ Children 0 ☐ None – *SKIP to Check Item JJ*
e. When do you expect to have your next child?	e.	(545) 1 ☐ Within the next 12 months 2 ☐ 13–24 months from now 3 ☐ More than 24 months but less than 5 years from now

CHECK ITEM JJ	*Refer to 119R* ☐ A Social Security Number is entered in item 119R – *SKIP to 104* ☐ No Social Security Number is entered in item 119R – *ASK 103*

103. What is your Social Security Number?	(546) ☐☐☐ ☐☐ (547) ☐☐☐☐

Notes	Total family members (548)
	Total household members (549)
	(550)

Now I have a few questions about the education and work experience of the other family members living here.

					Persons 6–24 years old			Persons 14 years old and over			
									If person worked at all in the past 12 months –		
Line number 104	**Name** List below all persons living here who are related to respondent. *Enter line number from the Household Record Card in Column 104* 105a	**Relationship to respondent** *Example: husband, son, daughter, mother, brother, etc.* 105b		**Age** As of January 1, 1973 106	Is . . . attending or enrolled in school? *Circle* 1 – *Yes* 2 – *No* 107a	If "Yes" – What grade (year)? If "No" – What is the highest grade (year) . . . ever attended? 107b	Did . . . finish this grade (year)? *Circle* 1 – *Yes* 2 – *No* 107c	In the past 12 months how many weeks did . . . work either full-or part-time (not counting work around the house)? 108a	In the weeks that . . . worked, how many hours did . . . usually work per week? 108b	What kind of work was . . . doing in the past 12 months? *If more than one, record the longest.* 108c	
		Respondent	(551)								
			(552)		(553) 1 2		1 2	(554)			(555)
			(556)		(557) 1 2		1 2	(558)			(559)
			(560)		(561) 1 2		1 2	(562)			(563)
			(564)		(565) 1 2		1 2	(566)			(567)
			(568)		(569) 1 2		1 2	(570)			(571)
			(572)		(573) 1 2		1 2	(574)			(575)
			(576)		(577) 1 2		1 2	(578)			(579)
			(580)		(581) 1 2		1 2	(582)			(583)
			(584)		(585) 1 2		1 2	(586)			(587)
			(588)		(589) 1 2		1 2	(590)			(591)
			(592)		(593) 1 2		1 2	(594)			(595)
			(596)		(597) 1 2		1 2	(598)			(599)
			(600)		(601) 1 2		1 2	(602)			(603)
			(604)		(605) 1 2		1 2	(606)			(607)
			(608)		(609) 1 2		1 2	(610)			(611)
			(612)		(613) 1 2		1 2	(614)			(615)
			(616)		(617) 1 2		1 2	(618)			(619)
			(620)		(621) 1 2		1 2	(622)			(623)
			(624)		(625) 1 2		1 2	(626)			(627)
			(628)		(629) 1 2		1 2	(630)			(631)
			(632)		(633) 1 2		1 2	(634)			(635)
			(636)		(637) 1 2		1 2	(638)			(639)
			(640)		(641) 1 2		1 2	(642)			(643)

NONINTERVIEWS IN 1972

Ask the following questions of all respondents who were noninterviews in 1972. Transcribe the answers to the appropriate item on the Information Sheet; then proceed with the regular interview.

A. Were you attending or enrolled in regular school at this time last year?

1 ☐ Yes – ASK B(1)

2 ☐ No – SKIP to B(2)

Transcribe entry to 111R

B. (1) What grade were you attending at that time?
(2) What is the highest grade of regular school you have completed?

0 None	0							
1 Elementary	1	2	3	4	5	6	7	8
2 High school	1	2	3	4				
3 College	1	2	3	4	5	6+		

C. Were you working or looking for work at this time last year?

1 ☐ Working

2 ☐ With a job, not at work

3 ☐ Looking for work

6 ☐ Unable to work

7 ☐ Other – Specify

____

____

____

Transcribe entry to 114R as follows:

1. *Mark "Labor Force Group A" if box 1 or 2 is marked*
2. *Mark "Labor Force Group B" if box 3 is marked*
3. *Mark "Labor Force Group C" if box 7 is marked*
4. *Mark "Unable to work" if box 6 is marked*

WHEN THE TRANSCRIPTION HAS BEEN COMPLETED,
BEGIN THE REGULAR INTERVIEW WITH ITEM 1.

INFORMATION SHEET – Continued

120R. Names, addresses and phone numbers of persons who will always know where respondent can be reached.

1. ______________________

____

____

____

2. ______________________

____

____

____

OFFICE USE ONLY

☐ Noninterview in 1970

121R. Name of employer in 1970

____

____

☐ Not employed in 1970

☐ Noninterview in 1969

122R. Name of employer in 1969

____

____

☐ Not employed in 1969

123R. Name of employer in 1968

____

____

☐ Not employed in 1968

109. When we last interviewed you, you mentioned *(read names from item 120R on Information Sheet)* **as persons who will always know where you can be reached even if you moved away. Is this still true?**
(If so, verify the addresses and telephone numbers and mark box 1 or 2 below. If not, mark box 2 and enter information about other persons who will know the respondent's whereabouts.)

1 ☐ All names, addresses and phone numbers are verified as being the same as those entered in Item 120R – *END INTERVIEW*

2 ☐ All others – Enter the names, etc. of two persons who will know the respondent's whereabouts or correct information about the two persons listed in item 120R

Name	Relationship to respondent	Address	Telephone number
(1)			
(2)			

INFORMATION SHEET
DATA FROM 1972 INTERVIEWS

110R. Date of last interview (Month, day, year)

(644)

Month	Day	Year

111R. School enrollment status in 1972

(645)
1 Enrolled
2 Not enrolled

Grade respondent was attending or highest year of regular school completed

(646)
0 None 0
1 Elem. 1 2 3 4 5 6 7 8
2 High 1 2 3 4
3 College 1 2 3 4 5 6+

112R. School enrollment status

	Enrolled	Not enrolled
(647)	1 ☐ 1968	2 ☐ 1968
(648)	1 ☐ 1969	2 ☐ 1969
(649)	1 ☐ 1970	2 ☐ 1970
(650)	1 ☐ 1971	2 ☐ 1971
(651)	1 ☐ 1972	2 ☐ 1972

113R. Respondent's educational goal when last interviewed

(652)
1 ☐ Not asked educational goal
2 ☐ High 1 2 3 4
3 ☐ College 2 4 6 7+

114R. Respondent's labor force status in 1972

(653)
1 ☐ Labor Force Group A
3 ☐ Labor Force Group B
7 ☐ Labor Force Group C
6 ☐ Unable to work

115R. ☐ Noninterview in 1971

Name of employer in 1971

____

____

☐ Not employed in 1971

116R. ☐ Noninterview in 1972

Name of employer in 1972

____

____

☐ Not employed in 1972

117R. Plans for age 35 when last interviewed

☐ Working – *Specify kind*

____

____

☐ Married, keeping house, raising a family

☐ Other or don't know

118R. Residence in 1968

City ______________________

State ______________________

119R. Social security number

(546) ☐☐☐ ☐☐

(547) ☐☐☐☐

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